

# RECORD OF DECISION

## Metolius Basin Forest Management Project Environmental Impact Statement

USDA Forest Service  
Sisters Ranger District  
Deschutes National Forest  
Jefferson County, Oregon

### Introduction

---

#### Background

The Metolius Basin is a special place, and has been for a long time. Native American tribes roamed this area hundreds of years ago and today, the Metolius Basin remains an area of importance to the Confederated Tribes of Warm Springs. Early settlers in the Northwest recognized the scenic beauty and spectacular natural resources in the Metolius Basin decades ago.

The 1990 Land and Resource Management Plan (Forest Plan) for the Deschutes National Forest recognized the Metolius Basin as a special place that “is truly unique in the quality and diversity of its natural resources and spiritual values”. Because of these values, a unique set of management standards and guidelines were established for this area in the Forest Plan under the designation of the *Metolius Conservation Area* (see insert).

The 1994 President’s Northwest Forest Plan also provides direction for the management and protection of old growth habitat and riparian reserves in the Metolius Basin; habitat elements which are well represented in the project area.

The 1997 Metolius Wild and Scenic River Plan provides additional direction for the management and protection of the outstanding and remarkable values associated with the Metolius River.

All of these plans and the philosophy, goals and direction communicated in them recognize that the Metolius Basin is a special place and that it deserves special management consideration.

#### ***The Metolius Conservation Area***

The Deschutes National Forest, recognizing the special qualities of the Metolius Basin, and wishing to preserve its outstanding values for future generations, established the Metolius Conservation Area as a unique management area under the Forest Plan (1990). The Forest Plan goals provide guidance to manage the Metolius Conservation Area with a focus on a “unique blend of arts and sciences applied with creativity,” and to be “creative and open to designing solutions which deviate from the standard approach or process.”

The Forest Plan also emphasizes that it is of “utmost importance that the Metolius “community” participate with the Forest Service in every aspect of plan implementation”.

Today, there is increasing broad-based concern that the very attributes that make the Metolius Basin a special place are at an unacceptably high risk of loss from potential catastrophic wildfires and declining forest health, and that something urgently needs to be done to reduce the risks and scale of these types of potential losses.

Several factors led residents, visitors and other communities of interest in the Metolius to urge the Sisters Ranger District to quickly address the wildfire hazards and forest health issues. Over the last decade or so, severe wildfires have occurred across the western United States. Within the Metolius Basin, the thick undergrowth of small trees and shrubs were competing with the majestic old growth trees for nutrients and water, placing them under stress and putting them at high risk to insects, disease, and severe wildfires. For many people, the risks became highly visible after many thousands of trees in the Metolius Basin were bent or broken as the result of a severe snow and ice storm during the winter of 2000.

At the same time, it was clear that whatever actions were taken in the Metolius to address these broad-based concerns were not going to be “business as usual”. It was imperative that the Forest Service and the communities of interest work together under the philosophy of the Metolius Conservation Area as described in the Deschutes National Forest Plan.

The Sisters Ranger District began working with the local communities on the Metolius Basin Forest Management Project in 2001. Over the past two years there has been an extra-ordinary effort by the Forest Service and many interested parties in participating in the various educational, planning, information sharing, and public involvement aspects of the project. A Final Environmental Impact Statement (FEIS) for the Metolius Basin Forest Management Project is now completed and available for review. This Record of Decision (ROD) is based on my thorough review of the FEIS as well as information I have gained from the extensive public participation for this project.

The Purpose and Need for Action, or project goals, for the Metolius Basin Forest Management Project addressed in the Final Environmental Impact Statement are:

1. Reduce the risk of catastrophic wildfire, insect and disease
2. Provide for the safety of people, and protect property, tribal and natural resources
3. Restore late-successional (old growth) forest conditions
4. Protect and restore watershed conditions

Five alternatives were fully analyzed in the FEIS to gain an understanding of the potential impacts of different strategies for meeting the project goals.

Activities analyzed in the FEIS to accomplish the purpose and need of the project include thinning trees from the dense forest stands, burning surface fuels, mowing dense shrubs, pruning trees with dwarf mistletoe, planting larch, and inactivating or decommissioning excess roads. Also considered is the need to improve or develop minor lengths of temporary roads for project implementation. Finally, two Forest Plan amendments specific to meeting the project objectives are also included in the FEIS. One addresses the need to modify the visual quality standards and guidelines in the Forest Plan and the other addresses the need to modify the Forest Plan direction for the collection of firewood within the project area.

## Overview of the Project Area

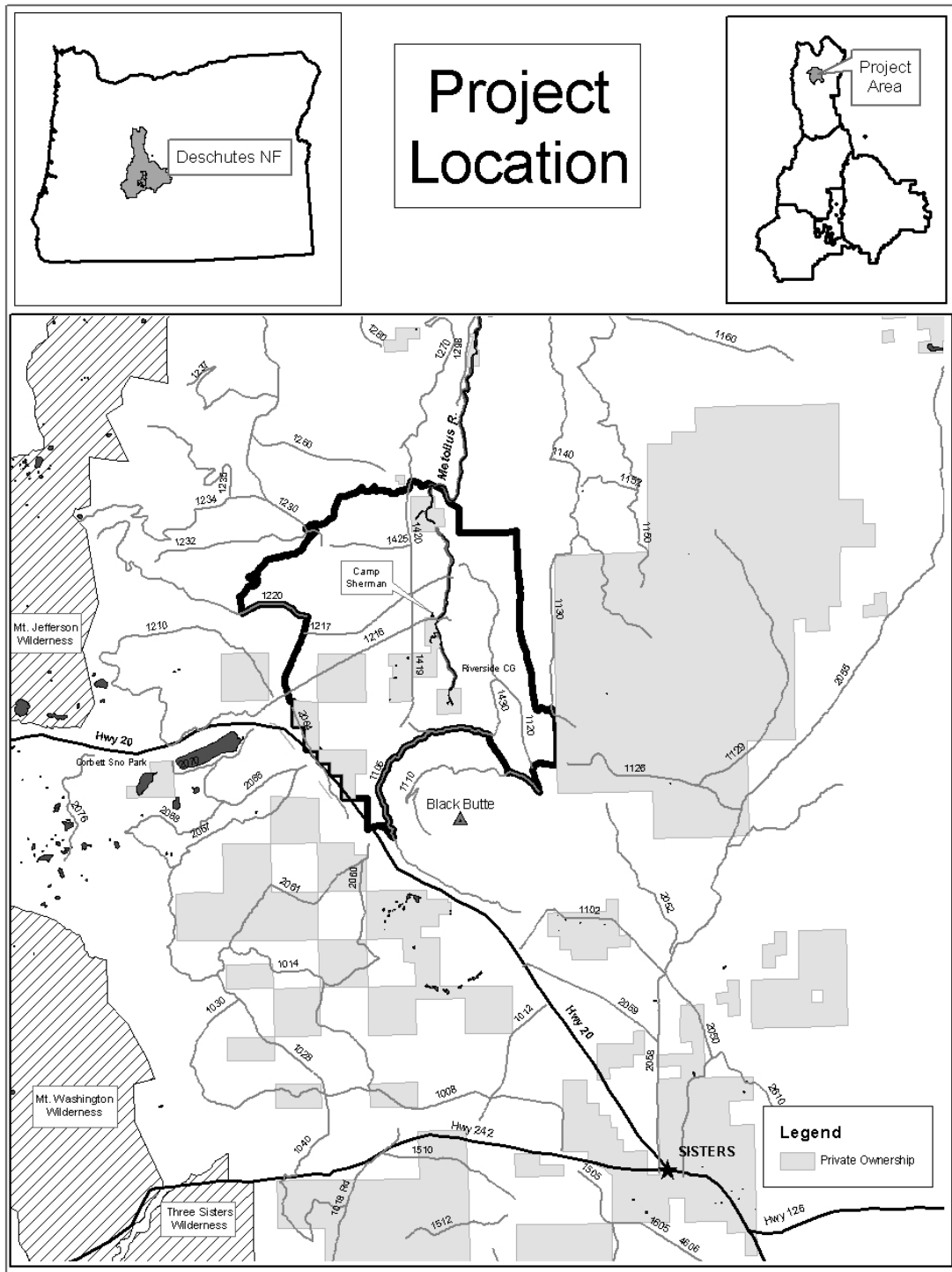
The Metolius Basin Forest Management Project area is located on the Sisters Ranger District, approximately 15 miles northwest of Sisters, Oregon. The planning area (Township 13 South, Range 9 East) is approximately 17,000 acres (2,000 acres are private land) and lies within Jefferson County (see Figure ROD-1). The area is generally level with steeper ground along the west slope of Green Ridge and the north slope of Black Butte. Elevation ranges from 3,000 to 4,200 feet. Forest stands in the lower elevations of the Metolius Basin are predominantly ponderosa pine, while stands along the higher elevations are a combination of ponderosa pine and dry mixed conifer. The riparian reserves range from dry site vegetation along intermittent channels to wet mixed conifer along perennial channels.

There are many unique elements in the Metolius Basin Forest Management Project area. The planning area:

- Is located within the Metolius Late-Successional Reserve, and within the Metolius Watershed (a key watershed under the Northwest Forest Plan).
- Contains the headwaters and several miles of the Metolius Wild and Scenic River, including the primary tributaries of Lake Creek, First Creek and Jack Creek.
- Is the setting for the Camp Sherman community, which includes residences in Metolius Meadows, over 100 recreation cabins, several resorts, and numerous Forest Service campgrounds. Collectively, they host thousands of visitors every year.
- Provides important habitat for threatened, endangered and sensitive species including spotted owl, bald eagle, white-headed woodpecker, Peck's penstemon, bull trout, and red-band trout. The project area is also considered essential habitat for Chinook salmon and may someday host anadromous fish runs, though salmon are not currently present.
- Is within the ceded territory of the Confederated Tribes of Warm Springs and holds important cultural and spiritual values for the tribes.
- Is a national pilot project for testing and evaluating new and innovative stewardship contracting authorities and multi-party monitoring of project implementation.

There are no wilderness areas or inventoried roadless areas within or immediately adjacent to the project area



**Figure ROD-1. Project Location**

## Decisions To Be Made

This Record of Decision documents my decision about:

1. The forest health and fuel reduction vegetation management actions to be implemented in the Metolius Basin Forest Management Project Area to achieve the purpose and need for the project.
2. The location and acreages where the forest health and fuel reduction vegetation treatments will occur, when they are to be treated, and what methods will be used.
3. The roads that will remain open within the project area to meet the access needs for resource management and public uses.
4. A site-specific, non-significant Forest Plan amendment to allow some actions that may not meet visual quality standards and guidelines in the short-term.
5. A site-specific, non-significant Forest Plan amendment to allow fuelwood collection in the Metolius Heritage area as a tool for implementing the project.

The scope of my decision is limited to actions described in the Metolius Basin Forest Management Project Final Environmental Impact Statement and this Record of Decision. The decision I am making is site-specific, not programmatic, and is not a general management plan for the area. These activities will implement the 1990 Deschutes National Forest Land and Resource Management Plan as amended by the 1994 President's Northwest Forest Plan and the 1997 Metolius Wild and Scenic River Plan.

## Purpose and Need for Action

---

### Project Goals

The purpose and need for the Metolius Basin Forest Management Project includes four specific project goals which are interrelated. They are:

1. Reduce the risk of catastrophic wildfire, insect and disease
2. Provide for the safety of people, and protect property, and tribal and natural resources
3. Restore late-successional (old-growth) forest conditions
4. Protect and restore watershed conditions

The actions proposed to reduce the risk of catastrophic wildfire and protect people, property and resources will include thinning trees, mowing small vegetation, and prescribed burning to reduce the amount and arrangement of fuel. Actions to restore forest health and protect watershed conditions include the thinning of trees to reduce stand densities, rebalance species composition and reduce stress on current and future late-successional forests. Actions to meet these forest health and watershed goals also include restoring the rare and important features of aspen and larch stands, riparian and meadow areas, and sensitive plant habitats such as Peck's penstemon in order to improve habitat diversity (Forest Plan, M-19: 4-165). Reducing the miles of open road will move the area toward Forest Plan guidelines for road density, help mitigate the potential

effects from vegetation management activities, and further help to protect and restore watershed conditions. Specifically, reducing the miles of open road will decrease the fragmentation of habitat and the level of disturbance to a variety of wildlife species, decrease the potential for sedimentation and thereby contribute to the improvement of water quality and fish habitat, and reduce the potential for weed invasion.

**Why:** Approximately 82% of forest stands on National Forest lands in the project area are at stand densities higher than can be sustained over the long-term, and approximately 97% of the area is at risk of moderate to high severity wildfire. People, property, late-successional habitat and forest resources are at risk. Taking the actions defined herein will significantly reduce these risks.

**When:** Project implementation is planned to begin in 2003, or as soon as the planning process is completed. The plan will be implemented as quickly as possible, depending on funding, but could take 5 or more years.

**Where:** Broad-scale forest health restoration and fuel reduction actions will be implemented on approximately 12,500 acres across the approximately 17,000 acre project area. These include focused fuel reduction treatments within the defensible space corridors (lands adjacent to residential and high public use areas) and along evacuation routes.

**How:** The project will be implemented through a combination of newly authorized stewardship contracts and traditional timber sale and service contracts, along with work accomplished through force account, partnerships and volunteers. The Metolius Basin Forest Management Project is a national pilot project that involves the use and evaluation of new innovative stewardship contracting methods to implement the project. It also requires working more closely with the communities of interest for collaborative project implementation and monitoring.

I have determined the proposed actions and resulting effects could best be analyzed and disclosed to the public through an Environmental Impact Statement. The Metolius Basin Forest Management Project Final Environmental Impact Statement documents the analysis of the alternatives developed to meet the Purpose and Need.

The following sections provide a little more background on the Purpose and Need for Action.

## **Reduce Wildfire Hazards to Community and Late-Successional Forest**

The combination of decades of aggressive fire suppression and the absence of active landscape scale forest management in the Metolius Basin has resulted in a forest which is at risk of high intensity wildfires due to broad acreages of forest stands congested with too many small trees and shrubs in the understory. The Forest Service, residents and visitors, and others interested in the Metolius Basin have all become concerned about public and firefighter safety; the growing potential of losing the special natural and cultural values of this place which include the clean and clear waters of the Metolius Wild and Scenic River and the beautiful old-growth ponderosa pine forest; and the important public and private property developments in the area.

Because of the overabundance of dense forest stands, ground fuels and ladder fuels, approximately 97% of the Project area is at risk of moderate to high severity wildfires which could be very destructive to the qualities that people treasure about the Metolius Basin.

In response to these concerns, the Sisters Ranger District shifted its priorities in 2001 and initiated the Metolius Basin Forest Management Project. This project will not only address the need to reduce the risk of catastrophic wildfire in the project area, but will continue implementation of the long-term strategy for fuel reduction and forest health restoration across the District. The District-wide strategy has involved forest health and fuel reduction vegetation management both at landscape-scales and in focused, strategic zones such as cross-District fuel breaks and defensible spaces around communities. Improving forest health and reducing the risk of catastrophic loss from wildfire, insects or disease is well supported by direction in the Forest Plan as amended by the Northwest Forest Plan, and is consistent with the recommendations from the Metolius Late-Successional Reserve Assessment and the Metolius Watershed Assessment.

It is important to continue the landscape fuel management strategy so that forest resources and adjacent communities are protected. During the last ten years, there have been 14 large wildfires on the Sisters Ranger District, each burning with greater speed and intensity. These fires have exhibited extreme fire behavior, have been difficult to control; homes have been lost; late-successional wildlife habitat has been lost, and lives have been threatened.

## Declining Forest Health

Ponderosa pine forests in the East Cascades, including those within the project area, are dry, fire-adapted ecosystems, referred to as fire climax forests. These forests historically burned at low intensities every 8-12 years which kept the forests “thinned” and the fuel accumulations low. However, 80 years of aggressive fire suppression and fire exclusion equates to about 7-10 fire cycles that have been missed, allowing decades of vegetation to accumulate, and stand densities to soar.

The majority (approximately 82%) of the stands in the project area are currently at high densities, as measured by the *upper management zone* (see insert next page). In these dense stands, trees are under stress because they are competing for sunlight, water, and nutrients. Across the landscape, the risk of losing late-successional habitat to wildfire, insects or disease is increasing. The 23,573-acre Eyerly Fire (2002) and the spruce budworm-caused mortality in the mixed conifer forests of the Santiam Pass area (late 1980s, early 1990s) are a couple of recent examples of how fire exclusion and increased stand densities have elevated risks on the landscape. In the Metolius Basin, where densities are high, large trees in these ponderosa pine forests have reduced vigor and individually, have increased susceptibility to bark beetle attacks.

*Over the last century, trees have grown much faster than the amount removed from all of the fires, harvest and mortality combined. In the southwest (Arizona and New Mexico), net annual growth is enough to cover a football field 1 mile high with solid wood. Recent removals have only been about 10 percent of this.*

Dale Bosworth, Forest Service Chief, 2002.

Many of the fire-climax stands in the Metolius Basin now have more fir tree species (particularly white fir) than they did historically. These species are not fire or drought tolerant. They tend to grow rapidly, have branches low to the ground, and out-compete the slower growing but more fire tolerant trees such as ponderosa pine and western larch. This adds to the overall forest health and fire risks.

In combination, high stand densities, an extensive accumulation of ground and ladder fuels, and above normal stand composition of white fir has resulted in a higher risk of losing the well-established old-growth ponderosa pine and larch stands. These stands, which are resilient to low-intensity fires but can be lost in high-intensity burns, are considered a highlight of the Basin. We want to protect and restore these treasured old-growth ponderosa pine and larch stands, and create conditions that allow these and future old-growth stands to develop into healthy, resilient fire-climax forests.

### **Forest Stand Densities: What is the “Upper Management Zone”?**

The *upper management zone* is one way to describe and analyze the density of forest stands. It is defined as a threshold density level at which a suppressed class of trees begin to develop in a stand. This is the point at which trees begin to come under stress because they are intensely competing for growing space, including sunlight, water, mineral nutrients, suitable temperature, oxygen, and physical space. The growth of trees can become limited when any one of the growth factors becomes limited. The higher stand densities are above the upper management zone, the more the growing space becomes limited and the greater the risk is of losing trees in the stand.

If we want healthy forests with large trees, then it is important to help control how dense the forest is growing.

## **Concern about Roads**

Another concern about impacts to the health of the Metolius Basin forest and streams are the high density of roads. Some of these roads are part of the Forest Service transportation system that are managed and maintained to Agency specified standards depending on funding. Densities of open roads in the project area are approximately 3.6 miles per square mile. The Forest Plan recommends densities of 2.5 miles per square mile or less for most areas of the Forest, and at or below 1.5 miles per square mile within the Metolius Heritage Area (which includes the core of the Metolius Basin Forest Management Project area). High road densities in watersheds can be a source of sediment into streams, decreasing water quality, and subsequently fish habitat. Wildlife can also be affected by high road densities. Non-native plants (weeds) also tend to become established along road corridors.

Reducing the miles of open roads helps mitigate the potential for resource effects from proposed forest health and fuel reduction activities (e.g. the potential for increased erosion and weeds), while also helping to meet the Forest Plan direction on road density and improving wildlife habitat for a variety of species (e.g. spotted owl, big game). Lowered road densities will reduce wildlife habitat fragmentation and the potential for disturbance to individuals.



## Public Participation

---

The opportunities for informing and involving the public on the Metolius Basin Forest Management Project has been extensive, and serves as an example of how the process for planning this project has not been “business as usual”.

The Notice of Intent (NOI) to initiate this Environmental Impact Statement was published in the Federal Register on January 17, 2002. It requested public comments on the proposed project. Other actions designed to inform and involve the public included numerous meetings in the local community which started in May of 2001; meetings with the Confederated Tribes of Warm Springs; consultation with the US Fish and Wildlife Service, National Marine Fisheries Service, and the Oregon State Historic Preservation Office; many field trips for the public, special interest groups, and small informal groups or individuals; and numerous conversations with interested individuals regarding the project. Many people concerned about the project were invited to visit the site with members of the planning team.

Information about the project was also provided for the public in letters, newsletters, and through numerous articles in the local newspaper. An interactive website for this project (<http://www.fs.fed.us/r6/centraloregon/index-metolius>) was created, which has received thousands of visits. The website provided another means for the public to follow and participate in the planning process on-line, and to view the types of vegetation treatments proposed.

In response to an idea proposed by the Friends of the Metolius, The Sisters Ranger District engaged in a partnership with the Friends to jointly plan, design and implement a small-scale Heritage Forest Demonstration Project in the Metolius Basin. The purpose of the Demonstration Project was to provide an educational opportunity through easily accessible, small-scale units that demonstrated the types of forest management activities that might be used in this project. The Friends of the Metolius and the Sisters Ranger District have conducted many field tours of the Demonstration Project with hundreds of people over the past two years.



The Sisters Ranger District also chartered the Metolius Working Group, a subgroup of the Deschutes Provincial Advisory Council (PAC), which was established under the Northwest Forest Plan. This group served as a sounding board and advisory group from the beginning of the planning process. The Metolius Working Group is made up of representatives from a wide range of community interests including residents of the Camp Sherman community, the Confederated Tribes of Warm Springs, local and regional environmental groups, wood products industry representatives, researchers, recreational groups, and cooperating state and federal agencies.

The Metolius Basin Forest Management Project was also selected as one of the national pilot projects for testing new Stewardship Contracting Authorities. As part of this pilot, the Sisters Ranger District has helped to organize and has been working with a Multi-Party Monitoring Team, also comprised of diverse members of the community, to guide the implementation and monitoring of the project using the new Stewardship Contract Authorities.

Fire ecologists and managers from around the country, representing many natural resource agencies and organizations, evaluated the Metolius Basin Forest Management Project in November 2002 as a case study for a National Fire Learning Network Workshop. These fire professionals provided input on the project planning, design and implementation.

Coordination with the Confederated Tribes of Warm Springs has occurred frequently over the past two years leading up to my decision. Representatives from the project planning team briefed tribal staff about the project in December 2001 and again in January 2003 after the release of the DEIS. In addition, representatives from the Confederated Tribes of Warm Springs have served on both the PAC Metolius Working Group and the Stewardship Contracting Multi-Party Monitoring Team. Representatives of the tribes have participated in a variety of field trips to the project area. My decision has been guided by the federal government's trust responsibilities to the Confederated Tribes of Warm Springs.

The DEIS was distributed for comments on December 11, 2002 and a Notice of Availability was published in the Federal Register on December 20, 2002. The comment period closed on February 15, 2003. In response to the DEIS, approximately 160 comments were received and thoroughly reviewed. They provided a wealth of feedback on the project. Copies of comments and our responses are available along with this document.

## Issues

---

Though there is broad-based support for the purpose and need of the project, five key issues related to concerns over the extent or effects of the proposed activities have been identified by the Forest Service interdisciplinary team either through their own deliberations or in response to issues raised by the public. The key issues were used to develop alternatives to the Proposed Action. The key issues include:

### 1. Management of Vegetation in Late-Successional Reserves

Though the use of vegetation management to reduce the risk of catastrophic loss to Late-Successional Reserves is consistent with the Northwest Forest Plan, there is debate about the type and amount of management that should be done to best meet the project goals.

### 2. Size of Trees Removed

Though there is no limit on the size of trees that can be removed from National Forest lands in the project area, there is considerable social debate and opinions about what size of trees should be removed or left on-site to best meet the project objectives.

### 3. Prescribed Fire as a Fuels Management Tool

Prescribed fire can be an effective tool for reducing fuel levels and the risk of high intensity wildfires. It can contribute to improving forest health by thinning forest stands and reducing competing vegetation. However, there are concerns by some Metolius Basin residents and visitors about the short-term impacts of controlled burning such as smoke and blackened trees.

#### 4. Water Quality and Soil Health

It is broadly understood and supported that some tree harvesting is needed to reduce the risk of intense wildfires and to improve forest health. Concerns were expressed about the potential adverse impacts of tree harvesting, especially mechanical harvesting of larger trees, on soil and water. What are the best ways to mitigate these potential impacts?

#### 5. Road Access

Reducing the miles of roads can help reduce resource impacts and mitigate the potential adverse effects from vegetation management, particularly sedimentation in the river system. Roads also contribute to wildlife habitat fragmentation and the introduction of invasive plants (weeds) into new areas of the forest. Decreasing the open road miles also reduces access in the project area for both management and the public by vehicle. What is the most appropriate network of roads to maintain for public access and forest management purposes, as well as for ecosystem protection and restoration?

## Decision

---

I have decided to enter the Metolius Basin Forest Management Project area to implement a variety of management activities that have been carefully analyzed and planned to accomplish the purpose and need for the project while also being responsive to the key issues identified through the planning and public involvement process. I have decided to select Alternative 3 as described and analyzed in the FEIS, with some modifications. I will refer to my selected alternative as “Alternative 3-Modified”.

Alternative 3-Modified addresses ways to better meet the purpose and need for the project while incorporating some important adjustments to respond to interests, issues and opportunities identified and addressed between the Draft Environmental Impact Statement (DEIS) and the Final Environmental Impact Statement (FEIS). These modifications were fully analyzed and disclosed in the different alternatives presented in the DEIS and FEIS, and are also addressed in specialist reports and the Interdisciplinary Team’s response to public comments.

The actions I have decided to include in Alternative 3-Modified are described in more detail below. My rationale for this decision is described in the next section of the Record of Decision.

### Details about Alternative 3-Modified

The specific management activities included in Alternative 3-Modified are described below. First, I have incorporated a summary of the specific actions included in Alternative 3 as described in the FEIS. Secondly, I have included descriptions of the modifications that I have incorporated into Alternative 3-Modified. In combination these sections describe Alternative 3-Modified. A summary table that compares the activities included in Alternative 3-Modified to Alternative 3, as it presented in the FEIS, is at the end of this section (Table ROD-1). A map of Alternative 3-Modified is also located at the end of this section (Figure ROD-3).

### **Summary of Alternative 3**

#### **Forest Health and Fuel Reduction Treatments and the Size of Tree Removed:**

Over 12,600 acres, approximately 74%, of the total project area will be treated by forest health and fuels reduction vegetation management activities (see Table ROD-1 at the end of this section). Activities include thinning trees, mowing brush, prescribed burning, restoration of meadows and aspen stands, pruning trees infected with dwarf mistletoe, and the removal of hazard trees as needed to protect public safety. Debris and fuel created during tree harvest operations will be disposed of through a variety of methods including, but not limited to, any market or public utilization that may exist, prescribed burning, and hand or machine piling followed by burning.

As mentioned earlier, there has been considerable social debate and opinions throughout this planning process about what size of trees should be removed or left on-site to best meet the project objectives. As a result, alternatives were developed to address this issue. Each of the action alternatives are described in the context of the size of trees that would be removed.

Alternative 3 as described in the FEIS has a general upper limit on the size of trees that will be removed of 16 inches diameter. However, exceptions were allowed for exceeding the 16-inch upper diameter limit. These exceptions included white fir up to 21 inches in diameter under certain specific situations, and the removal of trees of any size and species that are determined to be a public safety hazard.

#### **Defensible Space Activities**

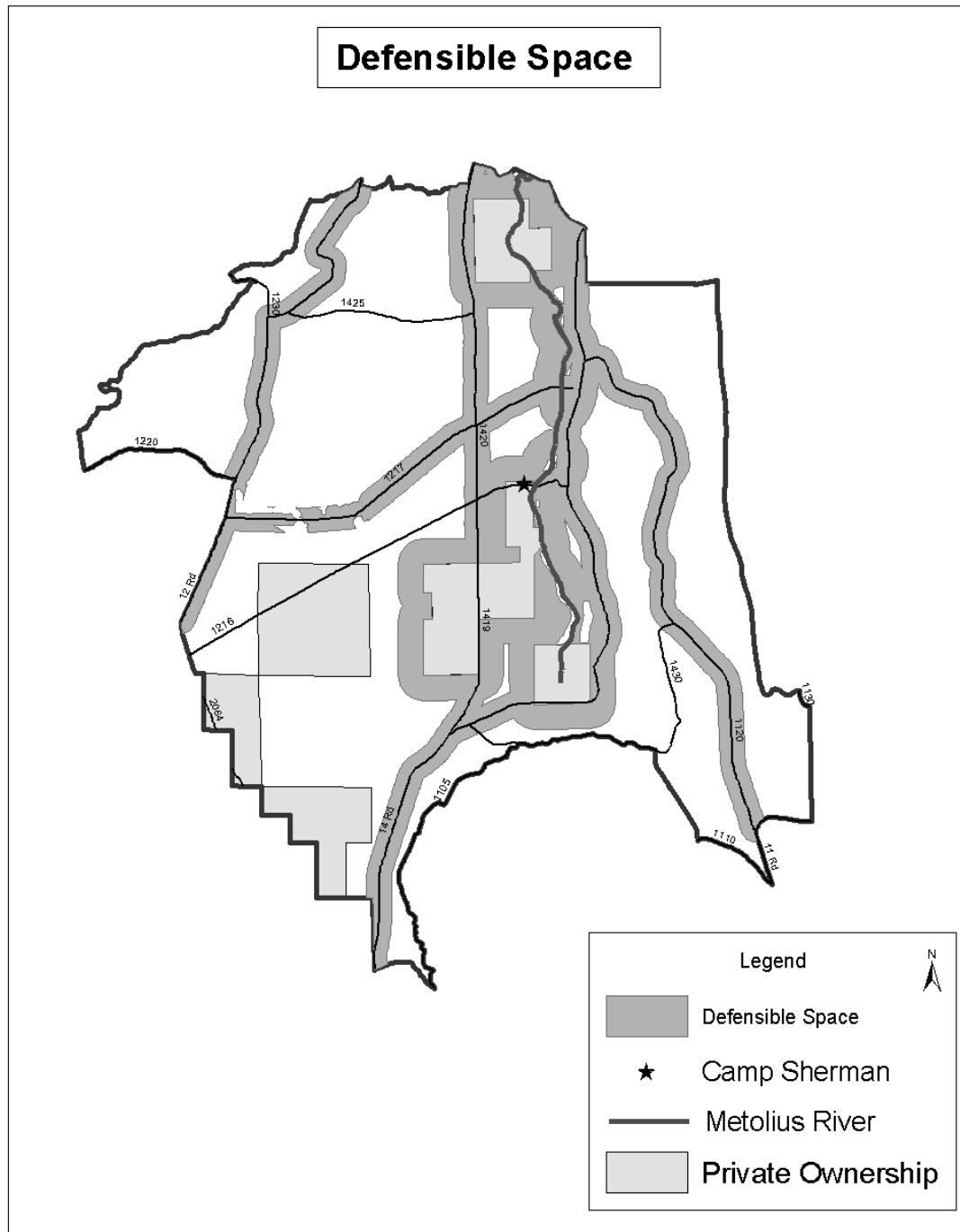
The defensible space corridors will be areas where fire intensity should be reduced so that firefighters can more safely and effectively suppress a fire that is moving toward main travel routes or high use areas. Treatments in these corridors are also important for keeping fires that start in high use or developed areas from spreading into the forest. A corridor of reduced fuel within the defensible space, in combination with the landscape-level treatments included in my decision, will provide a better chance for fires to stay low to the ground, and burn at a lower intensity. These are the types of fires that can be most safely and successfully suppressed, and tend to do the least damage to forest resources. In fact, they can be beneficial to a fire-adapted ecosystem like the Metolius Basin.

##### ***Reducing Risk of Wildfire at 3 Levels***

Wildfire risk would be managed with 3 different, though interrelated strategies:

1. Landscape Level – Risk of high severity wildfire would be reduced across the project area through broad-scale thinning, burning and mowing.
2. Defensible Space in the Wildland/Urban Interface – Focused fuel reduction zones adjacent to residential and high use areas, and along evacuation route roads.
3. Around Homes – the responsibility of homeowners to manage fuel on their property. (see [www.firefree.org](http://www.firefree.org) for tips on creating safety zones around your home).

The defensible space strategy will be fully implemented as described in Alternative 3 in the FEIS. It will consist of a contiguous corridor of reduced fuels approximately 600' on either side of the main routes into the Basin (Forest Roads 12, 14, 1419, 1420, 1120, 1216, 1217), and approximately 1200' on either side of the residential areas and other areas of high use (campgrounds, resorts) (Figure ROD-2).



**Figure ROD-2. Location of Defensible Space Zones**

Actions in the defensible space will primarily be thinning from below, focusing on leaving long-lived, fire resistant ponderosa pine, larch and Douglas-fir. These activities will be combined with mowing and under-burning as needed, hand piling and some pruning-up of limbs. The defensible space will look more open, with shorter brush heights and fewer small trees, but will be implemented in such a way as to appear natural by leaving variations in tree spacing and mosaics of a few small tree thickets for hiding cover and visual diversity. The upper diameter limit for this treatment is 16 inches, so most of the large trees will remain.



Defensible Space corridors may look like this stand

## Treatments in Riparian Areas

Under Alternative 3, forest health and fuel reduction vegetation management actions will occur within approximately 1,190 acres of riparian reserves. About 80% of these riparian reserve acres will be treated either by hand thinning or underburning. The remaining approximately 20% of these riparian reserve acres will be treated by ground-based machine thinning, but this will only occur in the drier, upland soils within the riparian reserves. The objective of these treatments is to restore vegetative diversity; reduce risk of catastrophic wildfire, insect or disease; reduce stand densities; and promote the development of large tree structure in riparian areas.

## Roads

In the original Alternative 3 discussed in both the DEIS and the FEIS, approximately 50 miles of roads were proposed for inactivation or decommissioning.

## **Summary of the Modifications to Alternative 3 (Alternative 3-Modified)**

As stated earlier, I have decided to implement Alternative 3-Modified. This section describes the modifications and clarifications that I have incorporated into Alternative 3 in making my decision. In summary, modifications to Alternative 3 include:

1. *Larch Restoration* - approximately 735 acres of larch restoration (as originally analyzed in Alternative 5 in the DEIS).
2. *Trees Removed* - specific provisions for exceeding the 16-inch upper diameter limit for trees that can be removed to meet the project goals (these actions were fully described and analyzed under Alternatives 4 and 5 in the DEIS).

3. *Road Inactivation and Decommissioning* - an additional 10 road miles of roads will be inactivated or decommissioned, for a total of approximately 60 miles (this action is the same as described and analyzed in Alternative 5. See Table 2-5 in the FEIS for a list of road status changes).
4. *Riparian Areas* - minor adjustments and clarifications of vegetation management treatments within riparian reserves.
5. *Connectivity Corridor* – modification of treatments within designated dispersal habitat in the connectivity corridor - where canopy closure of 40% currently exist it will be maintained at those levels.
6. *Big Game Habitat* – modification of mowing and burning operations, outside of the defensible space strategy areas, in order to assure that forage and cover habitat for big game is provided while landscape fuel reduction objectives are still met.

Overall, these modifications have resulted in approximately 70 acres less than the forest health and fuel reduction vegetation management activities described under Alternative 3 in the FEIS (see Table ROD-1 at the end of this section). Following is a more detailed discussion of these modifications.

#### Modification to Include Larch Restoration

I have decided to include approximately 735 acres of larch restoration in my selected alternative, Alternative 3-Modified. The larch restoration was originally analyzed as an activity in Alternative 5 in the DEIS. I have included the larch restoration because it contributes to the project goals of restoring (fire climax) late successional conditions. The larch restoration will provide important biological diversity to the Project area's fire climax late successional habitat, as well as visual diversity in the Project area's predominantly ponderosa pine forest. The inclusion of the larch restoration will also help accomplish some additional risk reduction and forest health objectives by reducing the amount of stands that are moderately to highly infected with dwarf mistletoe, and by reducing stand densities to a greater extent in the scattered small group openings. Finally, the larch restoration is consistent with the Forest Plan direction for the Metolius Heritage management area.

I think it is important to describe what activities are included in the larch restoration, because there may be some confusion. Approximately 70-90% of the acres within the 735-acre larch restoration area will be thinned from below, to an upper diameter of 16 inches. The thinning will be done in a way that helps to favor the existing healthy larch as much as possible and will be similar to other thinning treatments. The remaining approximately 10-30% of the acres will be treated with scattered small group openings ranging in size from ¼ to 3 acres. Some planting may be needed in these small group openings if natural regeneration is not adequate.

Larch is a shade intolerant species that historically became established after disturbances such as fire. Naturally occurring larch on the landscape are often found where past fires have torched pockets of trees and created favorable conditions (openings with mineral soil exposed) for the establishment of new seedlings. The scattered small group openings will be implemented and emulate this type of natural disturbance. They will occur in larch patches that are moderately to heavily infected with dwarf mistletoe or where the larch is in very poor condition and declining.

There is no upper diameter limit for trees that can be removed in the small group openings. The objectives are to remove or significantly reduce the amount of larch dwarf mistletoe in the stand, retain the largest healthiest trees, and open up the stand creating more open stand conditions favorable for the establishment and growth of naturally regenerated and planted larch. As many healthy larch as possible will be retained by pruning off the mistletoe infected branches. If pruning would not be effective, some larch may be girdled to kill the host trees and create additional snags. Removal of the most heavily infected trees will be necessary to prevent further spread of mistletoe. The scattered small group openings will be similar to the larch treatment in the Heritage Demonstration Unit 1a, though they may appear more or less open depending on the health, size and number of larch in the stand to be treated.

I believe the idea of larch restoration objectives proposed in Alternative 5 had a good deal of public support, but I also realize that many people who commented on the DEIS had concerns about the visual and resource impacts associated with the small group openings. I'm willing to take some actions during the implementation of the small group opening component that will help it be more responsive to some of the concerns that were raised regarding visual and resource impacts. Initially, I will not locate any of the small group openings in areas that are highly visible (for example, along Roads 1216 and 1419). My intent is to begin the larch restoration with the thinning from below treatments and a few small group openings, and then engage interested members of the community in evaluating and learning from the results. I will consider the lessons learned from these evaluations before proceeding with implementing the remaining small group openings. However, at this time, in order to meet the requirements of NEPA, I am approving the implementation of larch restoration across the entire area evaluated under Alternative 5 of the FEIS.

#### Modifications for Trees that May be Removed

I have decided to include the following modifications to the specific provisions for exceeding the 16-inch upper diameter limit for trees that may be removed to meet the project goals. These actions were fully described and analyzed under Alternatives 4 and 5 in the DEIS reviewed by the public.

I decided to include these modifications to Alternative 3 because they will help meet the purpose and need of the project by further reducing ladder fuels (white fir trees tend to retain their lower limbs as they grow, providing a ladder for fire to climb into the forest crowns); further reducing stand densities so the remaining forest is at less risk from competition; further reducing pockets of moderate to highly infected larch dwarf mistletoe; and in general favoring the growth and survival of more healthy fire and drought resilient ponderosa pine, larch, and Douglas-fir.

1. As discussed above, within the larch restoration small group openings, trees of all sizes and species may be harvested in order to remove the moderate to heavily infected dwarf mistletoe trees, and leave enough sunlit openings for naturally regenerated or planted larch trees to survive.
2. White fir up to 25 inches in diameter may be removed (or converted to snags) in areas targeted for white-headed woodpecker habitat, if the individual white fir trees are not needed to provide desired large tree habitat structure for this key focal species.



3. White fir up to 25 inches in diameter may be removed (or converted to snags) in situations where they are compromising the objectives of protecting existing, or promoting the development of future, large tree structure of desired fire resistant species such as ponderosa pine, western larch and Douglas fir.
4. White fir up to 25 inches in diameter may be removed (or converted to snags) if they are compromising the risk reduction objectives of the project to reduce the risk of wildfire, insect and disease.
5. White fir up to 25 inches in diameter will not be removed if their removal is contrary to other project objectives including, but not limited to, maintaining nesting, roosting or foraging habit for owls; maintaining canopy cover in connectivity corridors; providing essential riparian shade; or leaving “character” trees for wildlife habitat or visual diversity.

It is important to clarify that not every occurrence of the above exceptions will be followed every time it occurs. I do not intend to remove all white fir less than 25 inches from the project area, but to reduce it to more natural and sustainable levels (as discussed in Chapter 3 of the FEIS), especially in the drier, fire climax white-headed woodpecker habitat.

*Other Provisions to Retain Forest/Habitat Diversity.* I also want to clarify some other tree size and species provisions that I am including in my decision. I incorporated these clarifications because they will help meet the project goals by maintaining biological diversity and thus a healthier and more resilient late-successional forest ecosystem. These are not modifications of Alternative 3 as described in the FEIS, but they are direction I wanted to clarify for implementation purposes that respond to questions or concerns that were brought to my attention in some of the public comments to the DEIS.

- We will retain the important but more minor tree species components of Engelman spruce, white pine, lodgepole pine, and incense cedar in order to preserve species diversity in the project area, though some removal may occur to meet the purpose and need of the project.
- During thinning operations consideration will be given to leaving some smaller diameter but older (yellow-bark) ponderosa pine as a way to retain some of the genetic, visual and structural diversity these types of trees represent in the old growth ponderosa pine community. My intent is to allow flexibility to implement this direction on the ground so the intent can be met while not overly compromising the purpose and need for the project or complicating the implementation of the project.

#### Modifications for Road Inactivation and Decommissioning

I have decided to include 60 miles of road inactivation and decommissioning in my selected alternative as described and analyzed in Alternative 5 in the FEIS. This modification is compared to 50 miles that was included in Alternative 3 in the FEIS. I have included the additional miles of inactivation and decommissioning to accomplish some additional mitigation in response to the slight increase in potential soil impacts associated with including the larch restoration treatments (particularly the small group openings), and the 25 inch upper diameter limit for white fir that can be harvested in my selected alternative. The additional miles of roads inactivated and

decommissioned will also help to move the project area closer to the Forest Plan direction for road densities. Road inactivation, decommissioning and maintenance will benefit soils, water quality in the long-term. The quality of big game and other wildlife species habitat will also be improved by reducing the road density within the Basin.

#### Modifications Included for Riparian Area Treatments

I have decided to make adjustments and clarifications to the vegetation management treatments in riparian areas in the selected alternative. I have incorporated these modifications because they meet the project goals for protecting and restoring watershed conditions by protecting water quality and fish habitat, while not greatly compromising the other purpose and need goals for the project. Also, the actions I have included in my decision will help move the project area towards the desired future conditions identified in the Metolius Watershed Analysis.

1. I will drop the several small units of tree thinning that are along the fish bearing streams of Jack Creek, Lake Creek and the Metolius River to provide extra protection for water quality and they are too small to efficiently treat.
2. I would like to clarify that no thinning will occur within 60 feet of perennial fish-bearing streams (e.g. Lake Creek, First Creek, Jack Creek and the Metolius River) so that the amount of shade to these creeks will not be reduced. Similarly, no thinning will occur within 30 feet of intermittent stream channels.
3. We will not thin between the Metolius River and the boundaries of permitted recreation cabin lots so that we can maintain the maximum amount of over-story vegetation, both for the health of the river and for visual quality or screening along the Wild and Scenic River corridor.
4. Outside of the defensible space zones, we will consider delaying ground disturbing vegetation management activities in the riparian reserves associated with the Metolius River, Lake Creek, Jack Creek and First Creek until adjacent upland treated areas are in a stable condition in order to provide extra protection through a better functioning barrier to sediment delivery to the streams.

These adjustments have resulted in forest health and fuel reduction vegetation management actions within riparian reserves (see FEIS, page 72) being reduced from 1,190 acres to 1,052 acres (Aquatic Species Biological Assessment, page 16).

#### Modification of Treatments in Connectivity Corridors

I have decided that where canopy closure of 40% currently exist within designated dispersal habitat connectivity corridors we will maintain it at those levels as opposed to allowing it to be thinned down to 30% as allowed for in Alternative 3. I approved this modification because it meets the project purpose and need by providing better late successional dispersal habitat for species dependent on more dense interior forests, while also helping to somewhat reduce the risk of losing this important habitat to wildfires. I think that this modification is important mitigation for late successional species dependent on more dense interior forest habitat since a significant

portion of the project area will be thinned and moved more towards fire climax late successional habitat conditions. The treatments in these connectivity corridors will primarily consist of removing smaller trees to reduce some ladder fuels while maintaining at least 40% canopy cover where it currently exists.

#### Modificatations of Treatments in Big Game Habitat

There were concerns raised during the comment period for the DEIS that extensive acres of fuels reduction treatments may have adverse impacts to big game (deer and elk) habitat in the project area. I have decided that we will modify mowing and burning operations, outside of the defensible space corridors, in order to assure that forage and cover habitat for big game is provided while landscape fuel reduction objectives are still met. Mowing and burning treatments in these areas will be implemented to leave a natural appearing mosaic of hiding cover and forage while also breaking up the continuity of ground and ladder fuels. Where big game habitat is limited and where landscape fuel objectives will not be compromised, some mowing and burning units outside of the defensible space strategy may be deferred.

Similar considerations will be given to treatment units with the defensible space strategy so they appear natural, and are visually diverse with variations in tree spacing and occasional thickets of small trees, but more emphasis will be given to effective fuel reduction in the defensible space areas then for mitigating impacts for big game habitat.

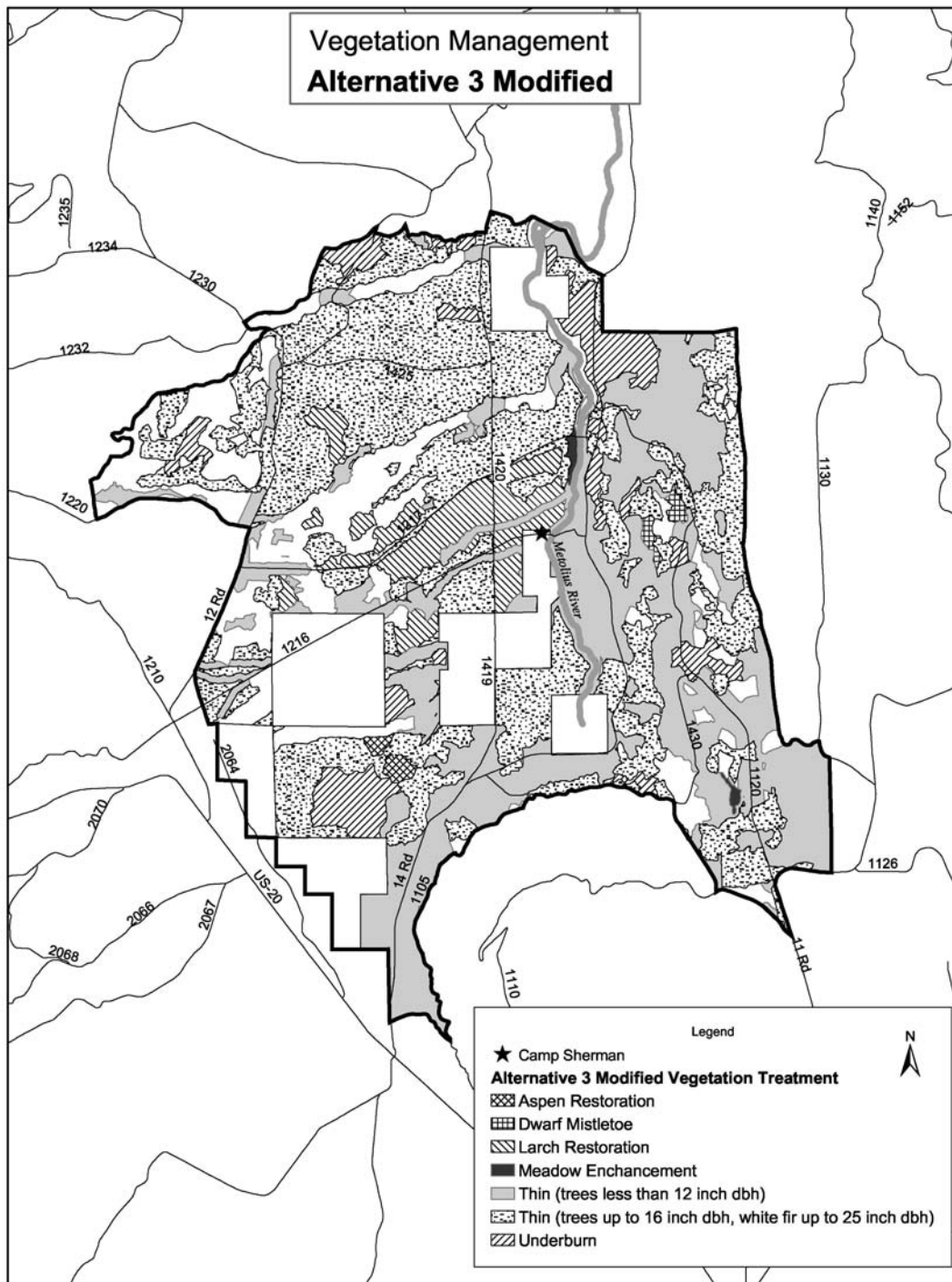
Design and mitigation measures identified on page 65 of the FEIS are incorporated as part of this decision to ensure consistency with the Forest Plan Standards and Guidelines for big game. As discussed above, the road closures and decommissioning will enhance the overall habitat effectiveness for big game.



**Table ROD-1. Activities in The Alternative 3-Modified (Compared to Alternative 3 in the FEIS)**

<b>RISK REDUCTION &amp; FOREST RESTORATION TREATMENTS</b>	<b>Alternative 3*</b>	<b>Alternative 3-Modified*</b>
Thinning Trees Up to 12 Inches Diameter	4638 acres	4618 acres
Thinning Trees Up to 16 Inches Diameter	<b>6758 acres</b>	<b>6009 acres</b>
Larch Restoration	<b>0 acres</b>	<b>735 acres</b>
Under-burning Without Mowing	<b>175 acres</b>	<b>138 acres</b>
Under-burning With Mowing	834 acres	834 acres
Meadow Enhancement	35 acres	35 acres
Aspen Restoration	10 acres	10 acres
Dwarf Mistletoe Control (Pruning)	130 acres	130 acres
<b>POST RISK REDUCTION &amp; RESTORATION FUEL TREATMENTS</b>		
Hand Piling	2408 acres	2474 acres
Machine Piling (may affect up to 60% of the unit acres)	2266 unit acres (up to 1360 acres affected)	2266 unit acres (up to 1360 acres affected)
Machine Piling on Skid Trails (may affect up to 20% of the unit acres)	3589 unit acres (up to 718 acres affected)	3589 unit acres (up to 718 acres affected)
Under-burning	868 acres	868 acres
Mowing & Under-burning	2440 acres	2440 acres
Mowing in Units Where Hand or Machine Piling is Used	5666 acres	5666 acres
Ground Based Mechanical Operations	7332 acres	7332 acres
Helicopter Operations	363 acres	363 acres
<b>ROADS</b>		
Decommission or Inactivate	<b>50 miles</b>	<b>60 miles</b>
New Roads	0 miles	0 miles
Temporary Roads (Close after Treatment)	1.65 miles	1.65 miles

\*Changes incorporated into Alternative 3-Modified have resulted in a reduction in approximately 70 acres from Alternative 3. Reductions are associated with treatments dropped within riparian reserves and the incorporation of 735 acres of larch restoration.



**Figure ROD-3. Vegetation Management Treatments under Alternative 3-Modified**

## Mitigation and Monitoring Requirements

### Mitigation and Monitoring

As part of my decision, I will implement the mitigation and project monitoring listed in the FEIS on pages 62-76, as well as the site-specific Best Management Practices identified in Appendix C of the FEIS. These mitigations measures have been identified to help minimize, avoid, or eliminate impacts on resources such as air quality, wildlife, plants and weeds, watershed and soils, riparian reserves and fish, recreation, heritage, and scenic quality. I am confident that selected mitigation measures will adequately prevent potential adverse effects of the project actions because the selected mitigation measures are practices that we have used successfully in the past; they are State-recognized best management practices for protecting water quality; or they are based on current research.

### Multi-Party Monitoring

It is important to point out that monitoring activities for this Project will be above and beyond normal. The Metolius Basin Forest Management Project has been selected as one of the national pilots to test and evaluate a set of new and innovative stewardship contracting authorities. Another aspect of this pilot authority is that “multi-party monitoring” is required.

Consequently, a team of interested citizens, representing a variety of local community, environmental, and wood products organizations will help monitor the implementation of this project. This team will make recommendations to the Forest Service on aspects of the project they would like to have monitored. We will work with this team to monitor the implementation of the project, discuss, learn and adjust in order to best meet the project objectives.

## Rationale for the Decision

---

I have thoroughly reviewed all of the alternatives analyzed for this project and have decided that Alternative 3, with the some modifications and clarifications, does the best job of meeting the Purpose and Need for Action and addressing the Key Issues associated with this project. I am referring to my selected alternative as Alternative 3-Modified. I also find that Alternative 3-Modified is consistent with the 1990 Forest Plan direction for the Metolius Conservation Area, as amended by 1994 President’s Northwest Forest Plan and the 1997 Metolius Wild and Scenic River Plan.

Alternative 3 as described in the FEIS was designed to substantially meet the project goals while incorporating some reduction in the extent and effects of the proposed treatments. It was designed to protect and restore adequate late-successional and riparian habitat, while providing a greater diversity of both fire climax and climatic climax late successional species. It was also designed to be responsive to some key social issues while continuing to meet the purpose and need for the project.

Alternative 3-Modified was designed to further improve the design objectives for Alternative 3 by borrowing some elements that were analyzed in the other action alternatives in both the DEIS

and the FEIS. My description of Alternative 3-Modified is presented in the previous section of this Record of Decision. Alternative 3-Modified will have similar outcomes and effects on the project-scale to those discussed under Alternative 3 in the FEIS. For example, the stand densities resulting from implementation will be similar to those described in the FEIS. However, there will be some subtle differences in the individual trees that are left on site as a result of my modification on the trees that may be removed. These differences will be in localized areas within a portion of the stands that are being thinned. Other modifications (e.g. larch restoration and road activities) have been discussed and their effects have been disclosed in the FEIS.

Here, I will explain how I came to the conclusion that Alternative 3-Modified does the best job of striking a responsible balance between meeting the project goals and responding to the issues, concerns and opportunities that were brought to my attention during the extensive public involvement efforts for this project.

### **Information Considered in the Decision**

I have based my decision on a thorough review of the information disclosed in the FEIS for this project, the Interdisciplinary Team's specialist reports, the Forest Plan direction for the Metolius Conservation Area as amended by the Northwest Forest Plan and the Metolius Wild and Scenic River Plan, and the extensive public involvement and input we received on this project.

I think it is important to point out that in making this decision I have had the benefit of extensive discussion, debate, comment and feedback with many members of the Camp Sherman community and the general public, tribal neighbors, special interest groups, and interested local, state and federal agencies. We have made an extraordinary effort to involve and inform the public in planning this project.

For example, we have worked in partnership with the Friends of the Metolius to plan and implement a "Heritage Forest Demonstration Project". The purpose of this project was to engage the public in educational demonstrations of the types of treatments that might be utilized on a larger scale to restore the forest in the Metolius Basin. Hundreds of people have visited the Demonstration Project and observed methods and outcomes such as those proposed to implement this Metolius Basin Forest Management Project.

We have also created an interactive website for this project, which has received thousands of visits, to enable the public to follow and participate in the planning process on-line, and to view the types of vegetation treatments proposed.

Other efforts include working with the Metolius Working Group of the Deschutes Provincial Advisory Council (PAC) as a chartered Federal Advisory Committee Act (FACA) advisory group. The Metolius Working Group served as a sounding board and advisory group from the beginning of the planning process. Group membership includes representatives from the Camp Sherman Community, the Confederated Tribes of Warm Springs, environmental groups, industry, researchers, and cooperating federal and state agencies.

In addition, the Metolius Basin Forest Management Project was selected as a national pilot project for testing and evaluating new and innovative stewardship contracting authorities. In conjunction with this we have helped to convene and organize a Multi-Party Monitoring Team that is providing implementation monitoring recommendations to the Sisters Ranger District for this project. Membership on this team is also made up of representatives from the Camp

Sherman Community, the Confederated Tribes of Warm Springs, environmental groups, industry, researchers, and cooperating federal and state agencies.

Our extra efforts to inform, involve and engage the public in the planning of this project has resulted in a vast amount of public feedback for me to consider. For example, we received approximately 160 written responses to the Draft Environmental Impact Statement that we distributed to the public in December 2002. Each and every letter was read, some of which were quite comprehensive, and the information we gained from them has contributed to the shaping of my decision to select Alternative 3-Modified. The public comments we received on the DEIS and our responses to them are presented in Appendix F of the FEIS, Response to Comments and Agency Letters.

I believe that our approach of involving the public has paid off by giving me a very good understanding of the different perspectives and values that people and organizations hold regarding this important project in this special place. I have a good sense for where there is broad agreement, such as on the purpose and need for this project. However, I also clearly understand that there are strongly held differences of opinion regarding the best way of accomplishing the project objectives. And while I have gone to great lengths to find a balance in doing what is ecologically right for the land and resources in the Metolius Basin according to the purpose and need for this project, it is also very apparent to me that there will still be strongly held differences of opinion regarding my decision. But it is now time to make a decision and move forward with implementation. As we do that, I commit that just like our approach has been during the project planning process, our approach through the project implementation and monitoring phases will also strive to achieve high levels of public involvement.

### **How Alternative 3-Modified meets the Purpose and Need for Action**

Based on my review of all the alternatives analyzed in the FEIS and the extensive public comments we received on the DEIS, I find that all of the action alternatives, Alternatives 2 through 5, meet the project objectives but to different extents and with different effects and tradeoffs. I find that Alternative 1, the No Action Alternative, falls well short of meeting the Purpose and Need for Action, and I believe it would be an irresponsible course of action to choose.

I have reached the conclusion that Alternative 3-Modified provides the most balanced approach to meeting the following Purpose and Need for Action goals:

- 1) Reducing the risk of catastrophic wildfire, insect and disease
- 2) Protecting the safety of people, property, tribal and natural resources
- 3) Restoring late-successional (old-growth) forest conditions
- 4) Protecting and restoring watershed conditions

I have also concluded that Alternative 3-Modified does the best job of responding to the Key Issues for the project that are:

- 1) Management of Vegetation in Late Successional Reserves
- 2) Size of Trees Removed
- 3) Prescribed Fire as A Fuels Management Tool
- 4) Water Quality and Soil Health



## 5) Road Access

I will present the rationale for my decision to select Alternative 3-Modified in the following sections by comparing how well all of the alternatives meet, or do not meet, the four Purpose and Need for Action goals, and then how well the alternatives, and particularly my selected alternative addresses the five Key Issues.

### 1. Purpose & Need: Reduce the risk of catastrophic wildfire, insect and disease

We should all understand that wildfires, insect and disease events are going to occur in and around this project area. Our goal is to reduce the risk and severity of those events. With that in mind, some of the criteria that I have considered in comparing how well the alternatives meet the project goal of reducing the risk of catastrophic wildfire, insect and disease are the extent to which they:

- Reduce stand densities across the project area.
- Reduce the acres predicted to burn at moderate to high fire severity.
- Implement the landscape and defensible space fuels reduction strategies.

Reducing stand densities in overstocked stands is important in meeting this project goal because it increases the vigor and reduces the stress of the remaining trees. It also decreases the likelihood of mortality from insects and disease. Reducing stand densities also equates to reducing live fuels in the forest.

I find that Alternatives 5 and 4 do the best job of reducing stand densities, followed by Alternatives 3-Modified, 2 and 1 in that order. Currently, using the basal area upper management zone as a criterion, 82% of the stands within the project area have too much density and therefore are at increased risk of forest health problems. The treatments in Alternative 5 reduce this amount to 34% followed by Alternative 4 at 36%, Alternative 3-Modified at 42% and Alternative 2 at 62% (Table ROD-2). The combination of lower diameter limits in Alternatives 4, 3-Modified, and 2 in combination with a somewhat different mix of proposed activities equates to less stand density reduction in those alternatives. And, of course, the No Action Alternative (Alternative 1) accomplishes little to no reduction in current stand densities.



**Table ROD-2. Stand Densities under the Alternatives**

<b>Stand Densities</b>	<b>Alt 1 - Current Condition</b>	<b>Alt 2</b>	<b>Selected Alt 3-Modified</b>	<b>Alt 4</b>	<b>Alt 5</b>
% of all project acres with densities over the upper management zone (UMZ). This relates to the % of area considered to be at greater risk of severe insect or disease effects	82% of stands exceed UMZ	62% of stands exceed UMZ	<b>42% of stands exceed UMZ</b>	36% of stands exceed UMZ	34% of stands exceed UMZ

The number of acres predicted to burn at moderate to high fire intensities is another important criteria that I examined. Currently, 97% of the project area is at risk of moderate to high fire intensities. Alternative 2 leaves 94% at combined moderate to high intensities, followed by Alternative 3-Modified at 67%, Alternative 4 at 53% and Alternative 5, which does the best, at 47% (Table ROD-3). Notably, all of the action alternatives leave only 6-11% of the project area at risk of high intensity fires as compared to the current situation (No Action- Alternative 1) of 52%. Again, Alternatives 5 and 4 do the best at reducing the risk of moderate to high severity wildfires, followed closely by Alternative 3-Modified and then Alternatives 2 and 1. Alternative 3-Modified does make important gains in moving the area toward lower severity classes.

**Table ROD-3. Predicted Wildfire Severity** (Percent of landscape predicted to burn at different severities)

<b>Burn Severity</b>	<b>Alternative 1 – Current Conditions</b>	<b>Alternative 2</b>	<b>Selected Alternative 3-Modified</b>	<b>Alternative 4*</b>	<b>Alternative 5</b>
Low-severity (non-lethal)	3%	6%	<b>33%</b>	48%	53%
Mixed-severity	45%	83%	<b>59%</b>	44%	41%
High-severity (stand replacement)	52%	11%	<b>8%</b>	8%	6%

Another criterion I used to compare the responsiveness of the alternatives to this project goal has to do with the extent of implementation of both landscape scale and defensible space zone treatments. Alternative 1, the No Action Alternative, does not make any significant progress toward this goal and leaves much of the landscape and defensible space zones significantly untreated. All of the action Alternatives implement both landscape scale and defensible space treatments, but to different extents which are primarily determined by the upper limit of tree sizes that can be removed to meet the project objectives. All of the alternatives do well in reducing

ground and lower level ladder fuels. The difference between alternatives is that the alternatives that allow for bigger trees to be cut do a better job of reducing the mid-level ladder fuels and creating more space between the tree crowns. Again, Alternatives 5 and 4 meet this criteria to the fullest, followed closely by Alternative 3-Modified and then Alternative 2.

Alternative 1, the No Action Alternative, obviously does not effectively address this important project goal. It leaves the Project area at a high risk of loss.

Alternative 2 makes progress in reducing some of the risk, but still leaves the project area at too high a risk of loss, and does not provide an adequate long term solution. The emphasis on under-burning in Alternative 2 helps to reduce ground fuels but does not appreciably reduce the stand structures needed to reduce risk.

Alternatives 3, 4 and 5 do a better of reducing ladder fuels and crown density by thinning about 6500 acres more than Alternative 2.



Alternatives 5 and 4 do the best at reducing the risk of catastrophic wildfire, insect and disease events in the project area, and if this were the only goal or issue for the project these Alternatives would be the best choices. Much of the additional gain achieved in risk reduction under these alternatives is in the outlying areas, away from the community. However, the tradeoffs associated with selecting either of these two alternatives would have been greater potential of short-term impacts on sensitive habitats, water quality and soil health.

I find that Alternative 3-Modified achieves most of the stand density and risk reduction benefits of the more aggressive alternatives (Alternatives 4 and 5), although it does not perform quite as well. I believe that my decision to modify Alternative 3 by adding the larch restoration treatments and increasing the upper diameter limit for white fir from 21 inches to 25 inches will further improve the ability of this alternative to address this important project goal.

I find that Alternative 3-Modified does a good job of meeting this project goal while at the same time providing a better balance in meeting other project goals and issues which I will address later, and that I must consider in my decision. I also believe this alternative is more responsive to the many public concerns that were raised about removing too big of trees (I will address this Key Issue later). Overall, it has high public support.

In conclusion, I find that Alternative 3-Modified does a good job and is better balanced in addressing the other project goals and issues I must consider. Alternative 3-Modified reduces the percent of the project area that is at greater risk of severe insect or disease effects by 40% over the existing condition. It also reduces the percent of the project area that is at risk of high severity fire by 44% over the existing condition. Alternative 3-Modified incorporates the important defensible space strategy and therefore, much of this risk reduction is occurring adjacent to communities.

## 2. Purpose and Need: Protect safety of people, property, tribal and natural resources

As I stated in my discussion of the previous project goal, wildfires are going to occur in and around the Metolius Basin. Fire is a natural part of that ecosystem. Our goal is to reduce the risk and severity of the fires in order to help provide for public and firefighter safety, and protect against the loss of highly treasured property, tribal and natural resources.

How well the alternatives address this project goal is very closely related to how well they address the previous project goal of reducing the risk of catastrophic wildfire, insect and disease events. Along those lines, the criteria that I used to compare the alternatives and how they performed against these criteria are pretty much the same as for the previous project goal:

- Reduce stand densities across the project area.
- Reduce the acres predicted to burn at moderate to high fire severity.
- Implement the landscape and defensible space fuels reduction strategies.

Effectively reducing the risk of the moderate to high severity wildfires in combination with effectively implementing the defensible space strategy along evacuation routes and adjacent to residential and highly used or developed recreation sites will go a long way to meeting this project goal.

Therefore my analysis and conclusions regarding how well the alternatives meet this project goal are the same as my assessment and conclusions for the previous project goal (Reduce the risk of catastrophic wildfire, insects and disease). In addition, all of the alternatives allow for the removal of trees that are a public safety hazard with no restrictions on tree size or species.

When considering the variety of project goals and issues, I find that Alternative 3-Modified does a good job of addressing this goal while balancing how other goals and issues are addressed. It fully implements the defensible space strategy with contiguous fuel reduction zones along evacuation routes, residential areas and high public use areas. It also allows for the implementation of landscape scale fuels reduction treatments consisting of thinning, mowing and under-burning.

This strategy is expected to greatly increase the protection of residents and visitors, properties, structures, and tribal and natural resources in the Metolius Basin.

In my decision to implement Alternative 3-Modified I did make an adjustment regarding how the fuels reduction treatments outside of the defensible space zones are implemented in order to help balance meeting the fuels reduction objectives while also providing adequate forage and cover habitat for big game. This implementation adjustment is in response to a concern raised by the Oregon Department of Fish and Wildlife during the public comment period for the DEIS. It is described earlier in the ROD where I described Alternative 3-Modified. I find this does not change the effectiveness or impacts of the treatments analyzed in the FEIS, and it results in a better balance of multiple resource objectives.

### 3. Purpose and Need: Restore late-successional (old-growth) forest conditions

It is important to note that the entire project area is allocated as Late Successional Reserves under the Northwest Forest Plan and that vegetation management for risk reduction purposes is consistent with the Northwest Forest Plan as long as the planned treatments are neutral or beneficial to the purposes of the late successional reserves, and consistent with the Late-Successional Reserve Assessment for the project area. Consequently, there are several criteria that I considered when evaluating the Project's compliance with this direction and comparing how well the different alternatives addressed this project goal. Some of the criteria I considered are the extent to which the alternatives:

- Reduce the acres predicted to burn at moderate to high fire severity
- Reduce high stand densities in fire climax stands
- Provide a balance of habitat for the key focal species
- Protect or restore components of biological diversity where appropriate
- Reduce the risk associated with invasive plant species
- Reduce the white fir composition in fire climax stands

The first criterion I considered was how well the alternatives reduce the risk of moderate to high severity wildfires that could result in undesirable losses to the Metolius Basin's Late-Successional Reserve habitat. My analysis and conclusions about how well the alternatives address this criterion is similar to what I found for the first project goal above. All of the action alternatives result in reduced risk to the Late-Successional Reserve habitat in the project area and are consistent with the Northwest Forest Plan in this respect. Alternatives 5 and 4 reduced the risk the most, followed closely by Alternative 3-Modified, and then Alternative 2. Alternative 1 does not reduce the risk. Alternative 3-Modified would do a little better than the original Alternative 3 as described in the FEIS due to the inclusion of the larch restoration treatments and the increased upper diameter limits for white fir and their additional contributions to risk reduction.

The second criterion I considered focused on the extent to which the alternatives reduced the high stand densities in the fire climax (white headed woodpecker focal habitat) stands below the basal area upper management zone. All of the action alternatives make progress in reducing the over stocked stand conditions in the project area, but to different extents. I consider these reduced stand densities beneficial to the long-term health and sustainability of the late successional reserves in the project area which is predominantly a fire climax ecosystem. My comparison of the alternatives for this criterion is similar to what I concluded for the same criteria in the first project goal. Alternatives 5 and 4 did the best followed by Alternative 3. Alternative 3-Modified would do a little better than Alternative 3 in the FEIS due to the inclusion of the larch restoration treatments and the increased upper diameter limits for white fir. In my opinion, Alternatives 2 and 1 continue to allow too much of the project area



Whiteheaded woodpecker habitat is generally open

to remain at high stand densities and therefore, while providing more dense multi-storied habitat for the short run, perpetuate an increasingly unstable and high risk situation for the Late-Successional Reserve habitat in the project area.

The next criterion I considered was how well the alternatives struck a “balance” in providing habitat for the variety of “focal” late successional species in the project area. The terrestrial focal species included white headed woodpecker, spotted owl, goshawk and Peck’s penstemon. Some of these species are dependent on dense forest habitat while others are dependent on more open forest habitat.

White-headed woodpeckers prefer more open fire climax late-successional habitat; the kind that is more sustainable in the project area. Alternatives 3-Modified and 4 did slightly better at providing habitat for white headed woodpeckers than did Alternative 2 which did not remove enough of the mid-story trees due to its upper diameter limit of 12 inches for thinning and its focus on prescribed fire; and Alternative 5 which removed too much of the thickets needed by the white-headed woodpecker for foraging. Alternative 1 leaves most of the project area at a high stocking level that does not meet the habitat needs for white-headed woodpeckers well at all.

For spotted owl, Alternative 1 provided the best habitat in the short run by continuing to provide overstocked multi-story stands, but leaves the habitat in the project area at a high level of risk for loss due to wildfires, insect and disease. The four action alternatives are about the same in terms of their impacts on nesting, roosting and foraging habitat for spotted owls; each proposes to thin small trees on 17 % of this habitat component for defensible space purposes. With regards to dispersal habitat for spotted owls, Alternatives 1 and 2 do the best by leaving more of the project area in highly stocked conditions, and Alternatives 4 and 5 have the greatest adverse impacts due to removing too much canopy cover. Alternative 3-Modified strikes a balance between the action alternatives and provides some essential dispersal habitat corridors while at the same time striving to implement the forest health restoration and risk reduction objectives of the project. I modified Alternative 3 with a provision to maintain all existing 40% canopy cover in the designated connectivity corridors which will help this alternative better meet the needs of the spotted owls for dispersal habitat.

Goshawk is another focal species addressed in the project FEIS. There is not much difference between the action alternatives in meeting the habitat needs for this species; all of them had short term potential negative effects by removing some habitat elements but long term beneficial effects by improving the health of the stands and accelerating development of large tree structure. Alternatives 3-Modified, 4 and 5 do the best in this regard.

The last terrestrial focal species addressed in the FEIS is Peck’s penstemon that survives best in more open, fire climax habitat. Alternative 2 would have the least direct disturbance to sensitive plants from vegetation treatments, but would not open up the canopy as well as the other action alternatives. Alternatives 3-Modified, 4 and 5 do a good job at opening up the canopy, but the impacts associated with heavy equipment needed to harvest the larger trees in Alternatives 5 and 4 have increased potential for more harm.



Peck's penstemon

I also looked at how well the alternatives protected or improved the biological diversity of the project area's late successional reserve. All of the action alternatives would implement the same amount of aspen and meadow habitat restoration that is beneficial to the habitat diversity in the project area. Alternative 1 does not. Alternative 5 and Alternative 3-Modified, each implement about 735 acres of larch restoration that is beneficial to restoring the biological diversity of the fire climax late successional reserves in the project area.

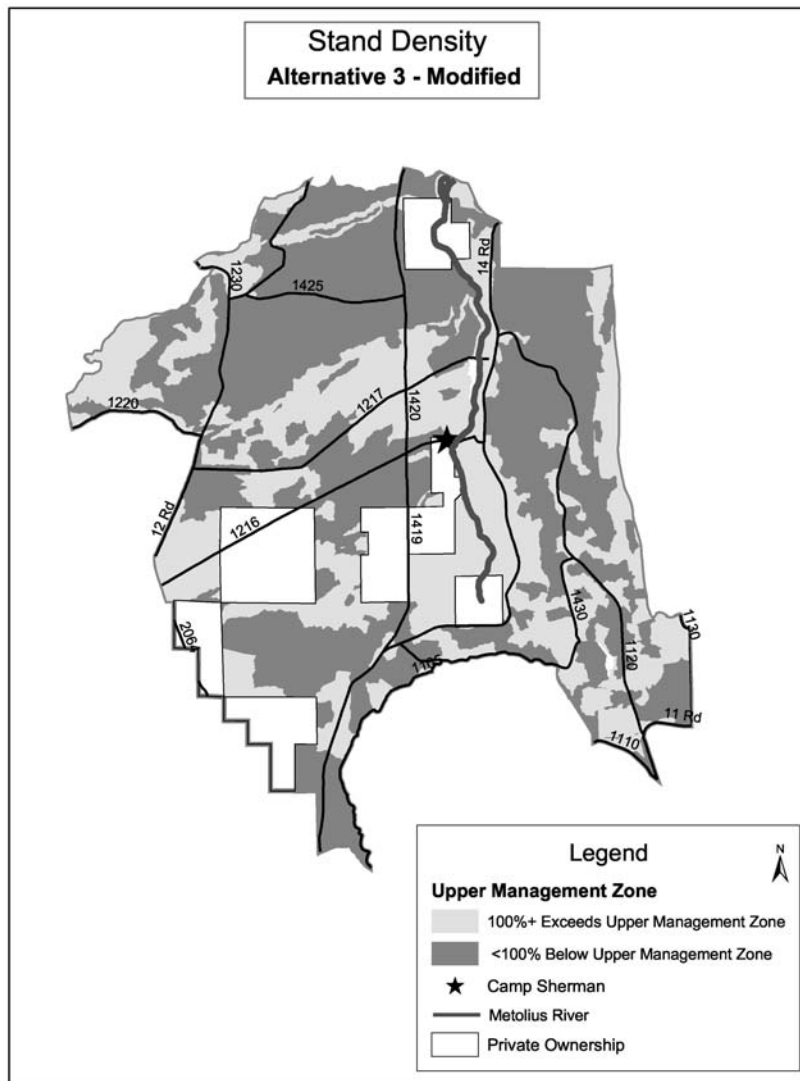
Each action alternative has the potential to increase the invasion of weeds. Generally, the greater amount of ground disturbing activities the greater the risk associated with invasive species so Alternative 5 has more risk associated with it than Alternative 2, and the lowest risk is Alternative 1 (at least until a large and severe wildfire occurs). As a mitigation measure, each of the action Alternatives propose to inactivate or decommission road miles commensurate with the amount of ground disturbing activity included with the alternative. So Alternative 5 plans the most road closures (60 miles), followed by the original Alternative 3 and Alternative 4 (50 miles) and Alternative 2 (20 miles). Since I decided to add some vegetation management treatments in Alternative 3-Modified, I have also decided to increase the road closures to the same 60 miles planned for closure in Alternative 5. This should give Alternative 3-Modified some additional advantage in helping to protect against the invasion of unwanted weeds.

The final criterion that I used to compare the alternatives for this project goal has to do with the extent to which they reduce the current un-naturally high composition of white fir in stands intended to be managed for fire climax white-headed woodpecker habitat. In general, the alternatives with the lower diameter limits for trees that can be removed are limited in their ability to remove sufficient amounts of white fir. Of course, Alternative 1 takes no action to reduce the white fir component. Alternative 2 is more limited in its ability to reduce enough white fir due to their more restrictive upper diameter limits for tree thinning. Alternative 2 has an upper diameter limit of 12 inches. Alternatives 4 and 5 provide the most management flexibility to remove white fir when it does not conflict with other goals for the project. In my decision, I have provided increased flexibility in Alternative 3-Modified by allowing white fir up to 25 inches in diameter to be removed. This is the same upper diameter limit for white fir that was analyzed as part of Alternative 4 in the FEIS.

In conclusion, there were several criteria that I considered when evaluating which alternative best meets the broad project goal of restoring late-successional (old growth) forest conditions. No one alternative consistently did the best with regards to the various criteria, and maybe this helps to understand that perhaps the best overall alternative is one that addresses most of the project goals and issues while striking some balance for the variety and complexity of objectives and issues that need to be considered.

Consequently, I think that Alternative 3-Modified best meets the broad project goal of restoring late successional forest conditions by striking a reasonable balance amongst all of the criteria that need to be considered. Alternative 3-Modified does the best job of balancing the outcomes of reducing high stand densities across the landscape (see Figure ROD-4); increasing the resilience of the late-successional forests and reducing the risk of losing late-successional elements, including old-growth ponderosa pine, to insect, disease or wildfire; and enhancing ecological diversity by restoring larch, aspen stands, and meadows, and by maintaining a mosaic of thickets and hiding cover to provide an important range of habitats for late-successional species as well as

for species associated with early to mid-seral forests. Ecological and old-growth diversity will also be maintained by retaining a range of old-growth elements, including smaller, but older ponderosa pine.



**Figure ROD-4. Predicted Stand Densities under Alternative 3-Modified**

I have also considered some of the cumulative impacts the proposed vegetation management treatments will have on the late successional reserves in the project area. They will not reduce the amount of Late-Successional Reserve in the project area, but they will alter the quality of it from more dense to more open conditions. I consider this a beneficial impact that will result in more resilient and sustainable conditions.

Considering all of these aspects, I conclude that Alternative 3-Modified is consistent with the direction in the Northwest Forest Plan and the Metolius Late Successional Reserve Assessment that covers this project area.



#### 4. Purpose and Need: Protect and restore watershed conditions

There were several criteria I considered while evaluating how well the alternatives met the project goal of protecting and restoring watershed conditions. They have to do with how effectively the alternatives:

- Reduce the risk of moderate to high severity wildfires
- Comply with the Deschutes National Forest Plan
- Implement measures to protect or restore special aquatic and riparian habitats
- Comply with the Northwest Forest Plan and the Aquatic Conservation Strategy objectives
- Comply with the Metolius Wild & Scenic River Plan
- Comply with the Clean Water Act

One criterion that I considered is the level of moderate to high severity wildfire risk reduction accomplished by each alternative. Such fires can have the greatest adverse impacts on the health of a watershed. I discussed my assessment of this criterion under previous project goals and concluded that Alternatives 1 and 2 leave the project area at the highest level of risk (97% and 94% of the acres, respectively) of moderate to high severity wildfires. I consider the potential adverse impacts of this type of risk to be much more serious than any of the potential impacts associated with the active vegetation management activities. I find the risk reduction accomplishments planned for Alternatives 3-Modified, 4 and 5 to be much more acceptable, with the later two being the best. With my modifications to Alternative 3 as the selected alternative, I find that it will further reduce the risk of watershed damage resulting from moderate to high severity wildfires.

I also considered whether the alternatives met the Forest Plan standards for soil protection. I found that all of the alternatives would meet the Forest Plan standards after mitigation. However, the alternatives with the most intensive vegetation management treatments will have the greatest amount of potential adverse effects to mitigate or restore. So Alternative 5 has the greatest potential adverse impacts while Alternative 2 has the least potential impacts of the action alternatives. Alternatives 3 and 4 are somewhere in between, but Alternative 3-Modified has more potential impacts because of my decision to include the larch restoration treatments and the increased upper diameter limit of 25 inches for the removal of white fir. Nonetheless, while there is the potential for short-term adverse impacts, all of the action alternatives will meet the Forest Plan standards for soil protection in the long term.

I also evaluated the difference between the alternatives in terms of their plans for managing the road network in the Metolius Basin and their compliance with the Deschutes National Forest Plan. The existing road density in the project area exceeds the Forest Plan guidelines. Roads can be a major source of sedimentation, riparian and wildlife habitat fragmentation, and are avenues for transporting invasive weed seeds; all of which pose adverse impacts to watershed health. Closing un-needed or un-wanted roads is also an effective mitigation for the potential adverse impacts of active vegetation management on soil and water resources.

All of the action alternatives propose to inactivate or decommission roads in the project area ranging from 20 miles of closures in Alternative 2 to 60 miles in Alternative 5 commensurate

with the amount and intensity of proposed vegetation management treatments. Even with the 60 miles of road closures in Alternative 5, the resulting road density is still above the Forest Plan guidelines even though it makes good progress towards them. The planning team felt that the remaining network of roads was needed for management and protection of the forest and to provide adequate public access. Having considered this I have decided to close 60 miles of roads in Alternative 3-Modified as compared to the 50 miles of road closures that were considered in Alternative 3. These are the same 60 miles that are proposed and analyzed in the FEIS for Alternative 5. I have decided to implement this maximum level of mitigation and protection because of the increased vegetation management activities that I included in the selected alternative. I think it is important to reduce the current road densities in the Basin, which are too high as defined by the Forest Plan direction.

Another criterion that I examined was the extent to which the alternatives proposed aquatic or riparian protection or restoration activities. All of the action alternatives propose to implement the same meadow restoration treatments so there is not much difference between them in this respect. However, I have incorporated some additional protection for the riparian area treatments that are included in Alternative 3-Modified that will benefit the aquatic and riparian systems in the project area. They are as follows:

1. I will drop the several small units of tree thinning that are along the fish bearing streams of Jack Creek, Lake Creek and the Metolius River to provide extra protection for water quality and they are too small to efficiently treat.
2. I would like to clarify that no thinning will occur within 60 feet of perennial fish-bearing streams (e.g. Lake Creek, First Creek, Jack Creek and the Metolius River) so that the amount of shade to these creeks will not be reduced. Similarly, no thinning will occur within 30 feet of intermittent stream channels.
3. We will not thin between the Metolius River and the boundaries of permitted recreation cabin lots so that we can maintain the maximum amount of over-story vegetation, both for the health of the river and for visual quality or screening along the Wild and Scenic River corridor.
4. Outside of the defensible space zones, we will consider delaying ground disturbing vegetation management activities in the riparian reserves associated with the Metolius River, Lake Creek, Jack Creek and First Creek until adjacent upland treated areas are in a stable condition in order to provide extra protection through a better functioning barrier to sediment delivery to the streams.

I also evaluated how well the alternatives complied with the Northwest Forest Plan Aquatic Conservation Strategy (ACS). The ACS was developed to restore and maintain the ecological health of the watershed and their associated aquatic ecosystems. Nine ACS Objectives are described in the Northwest Forest Plan and the alternatives were evaluated in regard to how well they meet these objectives (FEIS, pages 324-330, Aquatic Species Biological Assessment, pages 63-66). I found that Alternative 1 did not meet all of the 9 ACS Objectives. I found that Alternatives 2, 3-Modified and 4 met all 9 of the ACS Objectives, but that Alternative 5 posed a higher risk to Objectives 4, 5 and 7, and may not meet Objective 6. This is due to the more active vegetation management activities associated with Alternative 5.

I found that all of the action alternatives are consistent with the direction in the Metolius Wild and Scenic River Plan, but that Alternative 1 and 2 both leave the Wild & Scenic River at a high level of loss due to wildfires.

Finally, I examined the alternatives for their compliance with the Clean Water Act, and particularly with respect to Lake Creek since it is listed as 303(d) impaired due to water temperatures exceeding the state standards. The FEIS and this Record of Decision has clarified the point that thinning will not occur within 60 feet of the channels of perennial fish-bearing streams (including Lake Creek) so that shade will not be reduced.

I feel that the project goal of protecting and restoring watershed conditions can be achieved by reducing the risk of severe impacts to the forest stands and riparian vegetation in the project area; mitigating and providing protection against the short term impacts associated with active vegetation management and meeting Forest Plan direction for soil protection; and reducing the high density of roads in the project area to move closer to the Forest Plan guidelines. After reviewing all of the alternatives I selected Alternative 3-Modified as the means to provide the best short term and long term protection of watershed conditions. By reducing risk, this Alternative will also help meet the objectives in the Metolius Watershed Analysis and Metolius Late-Successional Reserve Assessment for protecting watershed conditions.

## **How Alternative 3-Modified Addresses Key Issues**

Throughout the planning process there has been broad-based public support for the purpose and need of the project. However, issues were raised during different parts of the planning process that have been addressed in either the FEIS or our response to public comments. Some of the issues were identified as “key issues” by the planning team and were instrumental in developing the range of project alternatives. In the following sections I will present how I considered these key issues in making my decision to implement Alternative 3-Modified.

### **1. Management of Vegetation in Late-Successional Reserves**

*Issue: Even though the use of vegetation management to reduce the risk of catastrophic loss to Late-Successional Reserves is consistent with the Northwest Forest Plan, there is debate about the type and amount of management that should be done to best meet the project goals.*

Implementing vegetation management actions that have the goal of improving forest health and reducing the risk of catastrophic loss to late successional reserves is well supported by the Northwest Forest Plan. I also find that the action alternatives considered in the Metolius Basin Forest Management Project FEIS are consistent, but to different degrees, with the recommendations contained in both the Metolius Late Successional Reserve Assessment and the Metolius Watershed Assessment that are both based on the direction in the Northwest Forest Plan.

Earlier in this Record of Decision I compared in detail how well the different alternatives addressed the project goal of restoring late successional conditions. Much of what I presented in that section applies to my consideration of this key issue so I will not reiterate all of it here.

Essentially what I find, in reviewing the alternatives in the FEIS and the adjustments that I have incorporated in this decision, is that all of the action alternatives (Alternatives 2, 3-Modified, 4 and 5) contribute to reducing the risk of losing important late successional reserve habitat in the Metolius Basin while also being neutral or beneficial to the objectives of those late successional reserves. Alternative 1 did not propose active vegetation management above some of the minimal activities currently occurring. It also does not reduce the risk in the late successional reserves. Alternatives 3-Modified, 4 and 5 do the best at reducing the risk, but I found that Alternative 3-Modified did the best job of balancing the variety of concerns that need to be addressed in meeting the objectives of the late successional reserve habitat in the project area.

I selected Alternative 3-Modified because I feel that it is the most balanced approach to managing vegetation in the Metolius Late-Successional Reserve. As discussed in the section pertaining to the project goal of restoring late successional (old growth) forest conditions, reducing stand densities across the landscape increases the resilience of the late-successional forest and reduces the risk of losing late-successional elements, including old-growth ponderosa pine, to insect, disease or wildfire. Currently, approximately 82% of the forest stands in the project area are at high stand densities that put the forest at high risk of impacts from insects and disease. Alternative 3-Modified would reduce this amount by almost 40%, so that only 42% of the landscape would have relatively high densities. The areas that would remain at higher densities would occur within spotted owl focal habitat areas, and along riparian areas where denser vegetation is important for habitat quality. Stand density reduction would be focused in the white-headed woodpecker focal habitat area (see Figure ROD-4, stand densities). While the more intensive treatments under Alternatives 4 and 5 reduced stand densities the most across the landscape, tradeoffs would have been made with short-term impacts to watershed and habitat conditions.

I would also like to point out that one of the objectives recommended in the Metolius Late Successional Reserve Assessment was to “keep species within a healthy range of variability”, specifically referring to the need to reduce the composition of white fir in fire climax habitat. I find that Alternative 3-Modified does a good job of accomplishing this objective, similar to Alternatives 4 and 5 in the FEIS.

## 2. Size of Trees Removed

*Issue: Even though there is no limit on the size of trees that can be removed from National Forest lands in the project area, there is considerable social debate and opinions about what size of trees should be removed or left on site to best meet the project objectives.*

While there is broad public support for the purpose and need for the Metolius Basin Forest Management Project, there is also broad public disagreement on the size and type of trees that should be removed, or left, to accomplish the project goals. While the direction in the Deschutes National Forest Plan as amended by the Northwest Forest Plan and the Metolius Wild and Scenic River Plan all promote the protection and restoration of old growth and the large tree character so treasured in the Metolius Basin, none of them place any limits on the size of trees that can be removed to meet those purposes. And there is no Agency policy or direction regarding tree size limits for the project area as well. However, there is broad based concern about the loss of

“large” trees across the project area and the need to protect what is left and improve the chances of developing more old growth and large trees for the future.

Nonetheless, the size of trees removed (or left) to accomplish the project objectives has been one of the most discussed social issues throughout the project planning process. It was a key issue raised by the public from the beginning of the planning process during initial scoping (including comments such as “don’t cut tress over 12” in diameter”, or “set strict diameter limits of 10-12 inches”). Concerns about tree size were expressed by about half of

**Tree Size Limit.** *It is important to understand that an upper limit on the size of trees that could be removed does not mean that **all** trees within these size limits would be removed. It is estimated that the majority of trees that would be removed under any Alternative would be smaller than 8” diameter because of the great preponderance of them.*

the 160 people who provided written comments on the DEIS. Most comments expressed an interest in limiting the size of trees removed to between 12 to 16” in diameter due to concerns about future and existing old-growth, and about potential visual quality impacts. Many people raised the concern that by removing trees greater in size then 12 to 16” in diameter that we would be removing the very trees we should be protecting. On the other hand, some people felt any limit on tree size was arbitrary, greatly reduced the ability of the land managers to accomplish the objectives of the project, and that we should focus only on the desired outcomes of the forest we leave behind. Because this was the most frequently raised issue by the public, it was used to help develop alternatives that were designed, in part, to evaluate the tradeoffs of different upper diameter limits to accomplishing the Purpose and Need. Therefore, different upper diameter limits were evaluated in the action alternatives and ranged from 8-12 inches, 16 inches, 21 inches, and no upper limit.

I feel the important outcome from this Metolius Basin Forest Management Project is what we leave on the land. Focusing on the size of trees that can be removed draws the focus away from where it should be: on the type of healthy forest we leave on the landscape. However, there are broad-based concerns regarding the size of trees that might be removed. I recognize that the Metolius Basin is a special place where there is a long history of the residents and visitors caring deeply about the area, the old-growth ponderosa pine forest, and the Metolius River. Social values here are very important and I find that I must be very considerate of these values in this special place, as directed in the Forest Plan (Metolius Conservation Area, pg. 4-164). In the Metolius Basin, I believe that I need to consider not just the biological sciences for forest management, but also the social values. Therefore, I have expressed the project outcomes from an ecological perspective while responding to concerns associated with the size of trees that might be removed. I do not believe that Alternative 3-Modified compromises our ability to meet the purpose and need for the project as the flexibility to remove larger diameter trees would have been exercised on a relatively small portion of the planning area under Alternatives 4 and 5.

However, I do realize that limiting the size of trees will reduce our flexibility on portions of the planning area. To meet density objectives, there will be instances when larger, less healthy trees (such as dwarf mistletoe infected trees) are left on site while smaller, trees with more vigor may be removed. Some areas of larger diameter trees will be left at higher than desired densities that will slow the development of future large trees and larger diameter snags. It may also prevent

removing trees greater than 16 inches in diameter in whiteheaded woodpecker habitat where density reduction could benefit the species.

Based on my review of the information in the FEIS, I also find that placing limits on the size of trees removed compromises some of the economic returns that could be used to help pay for accomplishing the project activities through the new stewardship contracting authorities we have for this project. And while economic returns should not, and do not, drive what we do to care for the land, they are an important consideration regarding the ability to implement the full spectrum of actions associated with the project.

On the other hand, I find that by being a little conservative in the number and types of tree greater than 16 inches diameter we remove, that we leave ourselves some options for addressing another issue that was raised in response to the DEIS. Although no snags other than safety hazards are prescribed for removal, concerns were raised as to whether we are leaving enough snags to meet habitat objectives for focal species identified in the project. The action alternatives were designed to leave enough snags to meet 100 percent of the population potential provided for the 1990 Deschutes National Forest Plan and to maintain existing snag levels on the landscape. I considered these concerns when I decided to select Alternative 3-Modified. I think it will leave more options for recruiting additional snags in denser areas where the 16" diameter limit calls for maintaining these high densities.

I selected Alternative 3-Modified because I find that it is as responsive as I think I can be to this social issue while still accomplishing important aspects of the purpose and need for this project as I have addressed earlier in this Record of Decision. In my decision I have included some specific exceptions to the general upper diameter limit of 16 inches associated with Alternative 3-Modified to better address the project goals and issues.

In conclusion, I want to point out that my decision for this project in no way is intended to establish a precedent for how tree sizes will be considered on future vegetation management projects on the Deschutes National Forest. I am not establishing a forest policy with this decision. The alternatives considered and the decisions made for each project are situation specific and depend on the purpose and need for each project, the desired outcomes for each project, and the issues that need to be addressed for each project.

### 3. Prescribed Fire as a Fuels Management Tool

*Issue: While prescribed fire can be an effective tool for reducing fuel levels and the risk of high intensity wildfires, as well as for improving forest health by thinning forest stands and reducing competing vegetation, there are concerns by some Metolius Basin residents and visitors about the short-term impacts of controlled burning such as smoke and blackened trees.*

In addressing this issue I want to be clear that wildfires are going to continue to occur in the Metolius Basin. Fire is a natural and important component of the fire climax ponderosa pine ecosystems in the Metolius Basin, and there are good ecological reasons for reintroducing managed amounts of fire back into that ecosystem. The purpose of this project is to reduce the risk and adverse impacts associated with the fires, both wildfires and prescribed fires, that are going to occur. Prescribed fire is one tool that is available to help accomplish the purpose and need for this project

Wildfires will produce smoke, and we won't be able to manage that smoke as well as we can the smoke produced by prescribed fires. Generally, the smoke produced by wildfires is greater in magnitude than the smoke produced by prescribed fires. The wildfires will kill, severely damage, and blacken trees. Prescribed fires also kill trees, but usually this is by design of the prescription. And we can better manage impacts from prescribed fires than we can wildfires.



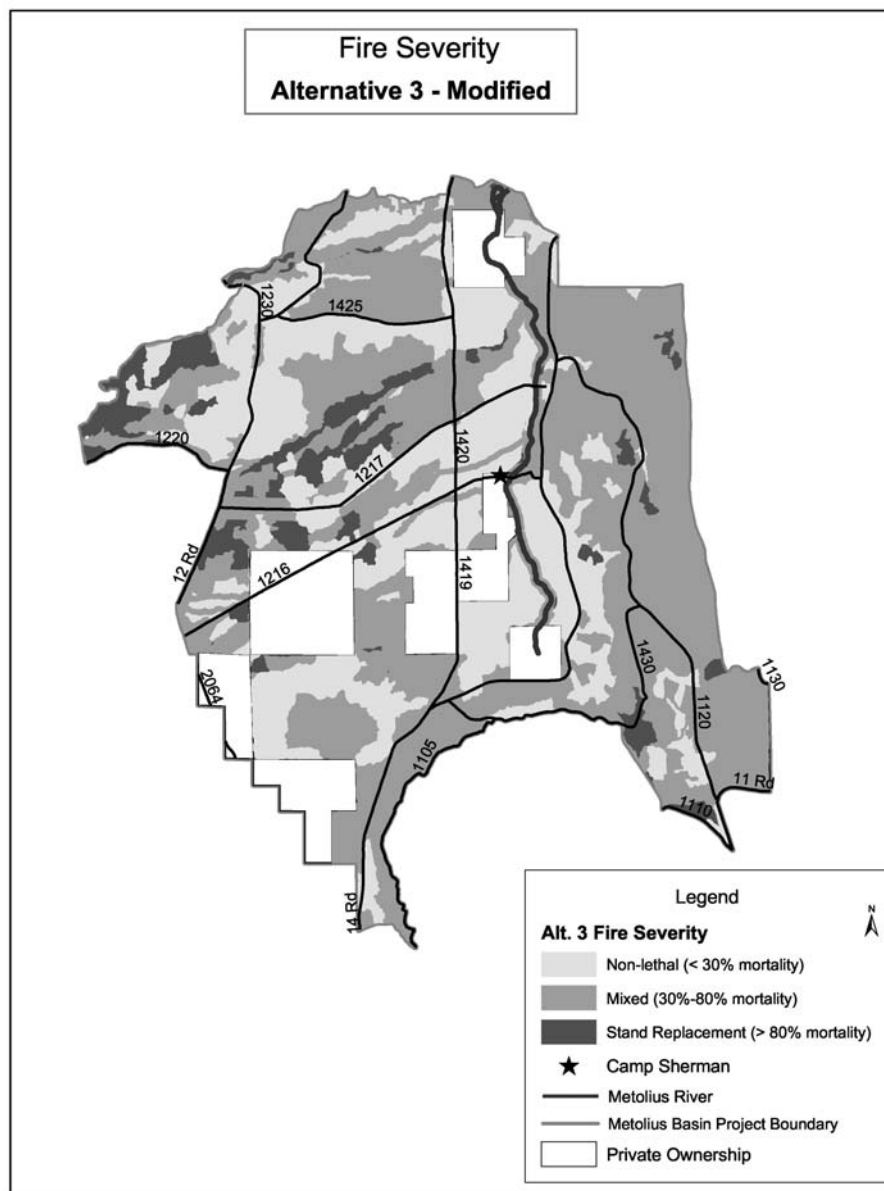
There are ways to avoid, minimize or protect against these impacts and risks that we will utilize now, and will continue to during the implementation of this project. For example, smoke is both a health issue and visual quality issue. There are standards, guidelines and procedures in place through the Clean Air Act and the Oregon State Implementation Plans that are designed to help address these issues. I intend that we will do our best to fully comply with these as we implement this project. Also, the action alternatives (especially Alternatives 3, 4, and 5) that include more thinning and more market or public utilization of thinned trees will help reduce the amount of smoke, damaged and blackened trees.

Based on my review of the information in the FEIS and in our response to public comments, I find that Alternative 1 does not currently allow for much prescribed fire in the project area and therefore does not contribute to the issues associated with prescribed fire. However, it does leave the Basin at a high risk of high severity wildfires which will come with all of the associated adverse consequences which I consider much more severe than any of the adverse effects associated with prescribed fires.

I find that Alternative 2, by design, contains the largest amount of prescribed fire treatments of any of the action alternatives. In addition, this alternative does the least amount of fuels reduction work through mowing and thinning prior to implementing the prescribed fire treatments. This will result in greater smoke produced by the prescribed fires in this alternative, and more risk of unwanted killed, damaged and blackened trees. There is also an increase in the risk of escaped prescribed fires with this alternative due to the overall lower level of fuel reduction across the surrounding landscape. And finally, the amount of prescribed fire in this alternative may make it difficult to implement as quickly as the other alternatives due to the often limited seasonal burn periods available, and the need to comply with the Clean Air Act.



I find that Alternatives 5, 4 and 3-Modified (in that order) address this issue the best. However, I selected Alternative 3-Modified because it is highly effective in treating the fuel profile on a landscape scale while bringing better balance to the way it addresses other important project goals and issues. Though it is not as effective in reducing crown bulk densities and the risk of crown fires as Alternatives 4 and 5, the combination of reducing surface and ladder fuels, by mowing brush and thinning trees up to 16" diameter (and white fir up to 25" diameter) will greatly reduce the risk of both high severity stand replacement wildfires and hot burning prescribed fires. The Selected Alternative reduces the potential fire severity from high (stand replacement) and moderate in the majority of the project area to moderate and low (primarily non-lethal) in much of the project area, and particularly around Camp Sherman and the evacuation routes for the Metolius Basin (Figure ROD-5).



**Figure ROD-5. Predicted Wildfire Severity under Alternative 3-Modified**



#### 4. Water Quality and Soil Health

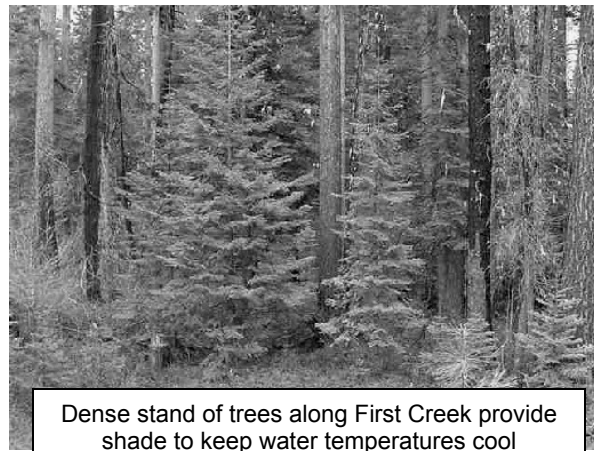
*Issue: Even though it is broadly understood and supported that some tree harvesting is needed to reduce the risk of intense wildfires and to improve forest health, concerns were expressed about the potential adverse impacts of tree harvesting, and especially mechanical harvesting of larger trees, on soil and water. Questions were asked about the best ways to mitigate these impacts.*

Earlier in this Record of Decision I compared in detail how well the different alternatives addressed the project goal of protecting and restoring watershed conditions. Much of what I presented in that section applies to my consideration of this key issue so I will not reiterate all of it here.

Essentially what I find in reviewing the alternatives in the FEIS is that all of the action alternatives will be in compliance with the Forest Plan direction for soil protection after mitigation activities are completed. The overall effects of the action alternatives combined with past, present and reasonably foreseeable management would be within the allowable limits set by the Forest Plan standards and guidelines for maintaining soil productivity.

In addressing this issue I also considered how well the alternatives complied with the Northwest Forest Plan Aquatic Conservation Strategy (ACS). I found that Alternative 1 did not meet all of the 9 ACS Objectives. I found that Alternatives 2, 3 and 4 met all 9 of the ACS Objectives, but that Alternative 5 posed a higher risk to Objectives 4, 5 and 7, and may not meet Objective 6.

I also examined the alternatives for their compliance with the Clean Water Act, and particularly with regards to Lake Creek since it is listed as 303(d) impaired due to water temperatures exceeding the state standards. All of the action alternatives had the potential to reduce shade along Lake Creek, and more so as the upper diameter limits for tree removal increase for the alternatives. To add some extra protection for Lake Creek, as well as Jack Creek, First Creek and the Metolius River I decided to not allow thinning within 60 feet of the channels so that shade will not be reduced. I find that with these increased protections and some of the others I added to Alternative 3-Modified we can better assure compliance with the Clean Water Act.



Dense stand of trees along First Creek provide shade to keep water temperatures cool

With regards to this key issue, I selected Alternative 3-Modified because it effectively reduces the risk of high severity wildfire, and therefore reduces the risk of contributing large amounts of sediment to stream systems, increasing water yields, removing shading vegetation, and damaging riparian function. Alternative 3-Modified complies with the Forest Plan soil standards for protecting against detrimental impacts, as well as the requirements of the Northwest Forest Plan Aquatic Conservation Strategy and the Clean Water Act. I also added some extra watershed and fish habitat protection in Alternative 3-Modified by deciding to implement 60 miles of road inactivation and decommissioning (including within riparian reserves) as described in Alternative 5 in the FEIS.

## 5. Road Access

*Issue: What is the most appropriate network of roads to maintain for public access and forest management purposes, as well as for ecosystem protection and restoration?*

Active vegetation management can result in adverse impacts to the resource conditions in the project area. These adverse impacts can consist of such things as soil compaction, erosion, sedimentation of streams, and increased invasion of weeds. Reducing miles of roads can help reduce resource impacts and mitigate the potential adverse effects of vegetation management activities. Reducing road densities can also help reduce habitat fragmentation and decrease the potential of disturbance to wildlife. However, reducing miles of roads also reduces access in the project area for both management and protection of the forest, and public uses.

I consider an environmentally sensitive and economically affordable road network to be an important element to a healthy forest system in the Metolius Basin project area. However, the road system also needs to provide adequate access for public use and enjoyment of the forest, as well as administrative access for management and protection of the forest. The recommended road densities identified in the Forest Plan are 1.5 miles per square mile in the Metolius Heritage Area (which includes the core of the Metolius Basin Forest Management Project area), and 2.5 miles per square mile elsewhere. Current open road densities are much higher, at about 3.6 miles per square mile both within the Metolius Heritage Area and throughout the project area (Table ROD-4).

**Table ROD-4. Changes in Road Status by Alternative**

Changes in Road Status (miles)	Alt 1 - current condition		Alt 2		Alts 3 and 4		Alts 3-Modified and 5	
	No Change – 151 miles of road (open and closed)		Close 6 miles of open road Decommission 14 miles of roads		Close 13 miles of open road Decommission 37 miles of roads		Close 18 miles of open road Decommission 42 miles of roads	
Total Miles Decommissioned or Inactivated	0		20 miles		50 miles		60 miles	
Road Density	All Roads	Open Roads	All Roads	Open Roads	All Roads	Open Roads	All Roads	Open Roads
- Entire Project Area	5.7m/sq. m	3.6m/sq. m	4.9 m/sq. m	3.4m/sq. m	3.8m/sq. m	3.1m/sq. m	3.4 m/sq. m	2.9m/sq. m
- Metolius Heritage Area Only	5.7m/sq. m	3.1m/sq. m	4.6 m/sq. m	2.9m/sq. m	3.8 m/sq. m	2.5m/sq. m	3.0 m/sq. m	2.4m/sq. m

The Interdisciplinary Team took a hard look at what road network is needed to provide adequate public and management access of the forest. This analysis, and comments from the public, showed there were many benefits, beyond moving toward Forest Plan recommendations and mitigating proposed vegetation treatments. The benefits include reduced sedimentation, reduced risk of spreading noxious weeds, reducing unmanaged recreation in riparian areas, reducing the risk of wildfire human-caused ignitions, reducing habitat fragmentation, and protection of riparian reserves.

This is an issue for which we received many comments from the public in response to the DEIS and I carefully considered these comments and our response to them in my decision. The majority of people who commented supported a general reduction in open road miles. However, there were a few people who objected to road closures, primarily due to a reduction in areas accessible by vehicles.

While I recognize access to National Forest lands is important, it is also important to provide an environmentally sensitive road network that we can afford to maintain. We cannot afford to maintain the current miles of open roads in the Metolius Basin. Many of these road segments are causing adverse resource impacts and increased risk to the health of the late-successional reserve.

In addressing this key issue, I considered the difference between the alternatives in terms of their plans for managing the road network in the Metolius Basin and their compliance with the Deschutes National Forest Plan. All of the action alternatives propose to inactivate or decommission roads in the project area ranging from 20 miles of closures in Alternative 2 to 60 miles in Alternative 5 commensurate with the amount and intensity of proposed vegetation management treatments for each alternative. Even with the 60 miles of road closures in Alternative 5, the resulting road density is still above the Forest Plan guidelines even though it makes good progress towards them. The planning team felt that the remaining network of roads was needed for management and protection of the forest and to provide adequate public access. Having considered this I have decided to close 60 miles of roads in Alternative 3-Modified as compared to the 50 miles of road closures that were proposed in Alternative 3. These are the same 60 miles that are proposed and analyzed in the FEIS for Alternative 5. I have decided to implement this maximum level of mitigation and protection because of the increased vegetation management activities that I included in the selected alternative, the importance I place on providing a high level of watershed protection in the Metolius Basin, and because I think it is important to reduce the currently too high density of roads in the Basin as compared to the Forest Plan direction.

### **How Alternative 3-Modified is Consistent with the Deschutes National Forest Plan**

The Metolius Basin Forest Management Project is located in the *Metolius Conservation Area*. The Forest Plan provides direction for managing land and resources in the Metolius Conservation Area, describing the Metolius Basin as “truly unique in the quality and diversity of its natural resources and spiritual values.” The Forest Plan

“The upper basin of the Metolius River is an inspiring forest setting. For decades people have found the Metolius to be a special place...” (Forest Plan 4-164).

recognizes the scenic springs, pristine water quality and excellent fisheries of the Metolius River system, as well as the “big, yellow-barked ponderosa pine trees” of the surrounding forests. The Forest Plan directs managers to set apart this part of the Deschutes National Forest and to manage it differently from other lands, working closely with the local community. “A partnership of mutual communication, teamwork, and respect, with joint expectations of successful results, is necessary to successfully implement the direction that has been established” (Forest Plan 4-164). The Forest Plan also directs use of a different approach in managing the Metolius Basin, indicating, “specialists must be creative and open to designing solutions.”

I feel that the Sisters Ranger District has fully embraced and implemented this direction, making an extraordinary effort to collaborate with the community of Camp Sherman and with interests and organizations across Central Oregon to plan for and design a successful risk reduction and forest health project. Alternative 3-Modified incorporates the Metolius Conservation Area’s emphasis on considering the unique social and spiritual qualities of the Metolius Basin better than the other Alternatives, while still moving the old-growth ponderosa pine forests to a more resilient condition, and reducing the risks for high severity wildfire. The Alternative 3-Modified also meets the Forest Plan direction to increase the use of prescribed fire to “simulate natural ecosystem function” and to enhance the “large trees growing in an healthy condition” (Forest Plan 4-165).



## Alternatives Considered

---

In addition to the selected alternative, I fully analyzed four other alternatives, which are discussed below. A more detailed comparison of these alternatives can be found in Table 2-4 of the FEIS on pages 78-85. In addition, four other Alternatives were considered but eliminated from detailed study because they did not adequately address forest health or the high risk of catastrophic fire in the Metolius Basin, unnecessarily limited legitimate tools for moving toward project goals, or were outside the scope of the purpose and need for the project. These 4 Alternatives were: 1) solely implement defensible space (fuel breaks), 2) use only prescribed fire (no tree harvest), 3) not permitting the removal of commercial products, and 4) analyzing long-term recreation management in the project area. A discussion of these actions can be found in the Environmental Impact Statement on pages 74-77.

### *Alternative 1- No Action*

Under the No Action alternative existing processes and habitat cycles in the project area would continue largely without intervention. Current management of recreation use and services, fire suppression, hazard trees, standard road maintenance and re-closure of breached

roads would continue. However, no actions would be taken to reduce wildfire hazards and forest health risk at a landscape scale, or to actively develop a defensible space around homes and roads.

*Alternative 1 was not selected* because it does not adequately address the extensive risk of high severity wildfire and the hazard of wildfire to people, property and late-successional forests. In addition, under Alternative 1, stand densities would continue to increase and risk of losing late-successional and old-growth forest components to insects and disease would increase. Alternative 1 was also not selected because it does not address the concern over high road densities.

### ***Alternative 2***

The objective of this Alternative is to reduce short-term wildfire hazards and forest health risk while minimizing short-term watershed and resource effects that can be associated with tree harvest. This Alternative also addressed the key issues of limiting tree harvest in Late-Successional Reserves, and limiting the size of trees that could be removed. This Alternative would reduce surface and some ladder fuels, but was not expected to contribute much to the reduction of stand or crown densities. The defensible space strategy would be implemented, though only trees 12" diameter or less would be removed. Approximately 71 percent of the total project area (12,135 acres) would be treated by proposed actions, mostly through burning, mowing and small tree (12" diameter or less) thinning. Approximately 20 miles of roads would be inactivated or decommissioned.

*Alternative 2 was not selected* because its emphasis on underburning and thinning of trees only under 12" diameter would not reduce stand densities enough to reduce risks associated with overcrowded stands, and would not appreciably improve forest health or the resiliency of old-growth stands. In addition, Alternative 2 does not move toward reducing the risk and hazards of wildfire as well as the other action Alternatives.

### ***Alternative 4 – Proposed Action***

Alternative 4 was identified as the Preferred Alternative in the DEIS. It is similar to Alternative 3 *except* the upper limit for the size of trees that could be removed is 21" diameter for ponderosa pine, Douglas-fir and western larch (instead of 16" diameter under Alternative 3). The upper limit for white fir would be 25" or less.

Approximately 74 percent (12,648 acres) of the total project area would be treated under Alternative 4. Vegetation management would primarily be thinning, combined with burning and mowing. The defensible space strategy would be fully implemented. Approximately 50 miles of roads would be inactivated or decommissioned.

*Alternative 4 was not selected* because potential impacts to spotted owl dispersal habitat and to riparian reserves were predicted to be higher than under Alternative 3-Modified. In addition there were high public concerns about the potential removal of ponderosa pine trees up to 21" diameter.

### **Alternative 5**

The focus of this Alternative is to maximize risk reduction across the landscape and address the project goals of reducing the potential losses from catastrophic wildfire, insects and diseases. The emphasis would be on providing habitat for species associated open fire-adapted stands. Approximately 75 percent (12,914 acres) of the total project area would be treated by proposed actions. Though there would not be an upper diameter limit specified under this Alternative, trees larger than 21" diameter would only be removed under certain conditions (see FEIS pg. 60).

The vegetation management would again be primarily thinning, burning and mowing, but, outside of riparian reserves, there would also be some shelterwood harvest in stands with mortality and decline from bark beetle, and some small group openings to restore declining larch stands. The defensible space strategy would be fully implemented. Approximately 60 miles of roads would be inactivated or decommissioned.

*Alternative 5 was not selected* because of potential impacts on wildlife, plants and aquatic species from a more extensive reduction in stand densities in mixed-conifer forest stands, the potential watershed and soil impacts from more intensive thinning across the project area, and from shelterwood harvest in the higher mortality stands.

### **The Environmentally Preferable Alternative**

In this ROD, I have described the Alternative 3-Modified and have given rationale for its selection. It is required by law that one or more environmentally preferable alternatives also be disclosed. The environmentally preferable alternative is not necessarily the alternative that will be implemented, and it does not have to meet the underlying need for the project. It does, however, have to cause the least damage to the biological and physical environment and best protect, preserve, and enhance historical, cultural, and natural resources [Section 101 NEPA; 40 CFR 1505.2(b)].

In the case of the Metolius Basin Forest Management Projects EIS, I have determined that the Selected Alternative 3-Modified is the environmentally preferable alternative. Alternative 3-Modified provides protection for late-successional forest habitat, soil and water resources while reducing the risk of impacts from high severity wildfire, and increases the resiliency of forest health, particularly within the focal area for white-headed woodpecker. Alternative 3-Modified also provides the greatest reduction in potential watershed impacts from roads by reducing approximately 60 miles of open roads miles in the project area. Alternative 3-Modified best meets the Metolius Conservation Area goals.

# Forest Plan Amendments

---

## Visual Quality

A short-term, non-significant, site specific amendment of several visual quality standards and guidelines in the Forest Plan will allow impacts from tree removal and prescribed burning to be visible to the “casual observer” for slightly longer periods. Though the current Visual Quality Standards and Guidelines would not be met in the short-term, the proposed actions are expected to better meet visual quality objectives for the long-term (over five to ten years). Following is a description of proposed changes to the existing standards and guidelines for Scenic Views (MA9), Metolius Heritage (M19), Metolius Black Butte (M21), and Metolius Special Forest (M22).

A goal for scenic views in the project area is to provide forest visitors with high quality scenery that represents the natural character of Central Oregon. The objectives call for enhancing landscapes by opening views to distant peaks, and highlighting large ponderosa pine. The scenic views allocation of “retention-foreground” is located ¼ mile either side of Forest Roads 14, 1419, 1420, 12, 1217 and 1120, along the Metolius Wild and Scenic River, and 1/8 mile either side of the Metolius-Windigo Trail. The remainder of the project area is considered “retention-middleground”, except for the area west of Forest Road 12 in the Metolius Special Forest. Although proposed activities are intended to meet this goal and the Standards and Guidelines over the long-term (longer than 5 years), short-term visual impacts are expected from removing vegetation (slash, stumps, stacked logs, skid roads), and reducing fuels (blackened, scorched vegetation and tree trunks). As such, it is recommended that the following Standards and Guidelines be amended:

M9-4, M19-26 and M21-9: Ponderosa Pine Foreground, Metolius Heritage and Metolius Black Butte – Desired Visual Condition

The proposed actions of thinning and underburning are expected to result in visible changes noticeable by the casual observer in these management areas. It is proposed that these Standards and Guidelines be amended to accept that the casual forest visitor may notice short-term changes in these allocations. These objectives would be met over the long term through re-establishment of open, park-like stands of ponderosa pine and enhancement of existing large pine trees.

M9-8, M9-27, M9-44, M21-20, and M22-13: Timing of Cleanup Activities in Ponderosa Pine Foregrounds, Mixed Conifer Foregrounds, Middlegrounds and Backgrounds, and forested areas in the Metolius Black Butte and Metolius Special Forest areas.

These Standards and Guidelines establish that slash, logging residue, or other results of management activities will not be obvious to the casual forest visitor one year following the activity in Retention areas, and two years following the activities in Partial Retention areas. Although the Sisters Ranger District intends to clean up the slash as soon as possible, especially along travel corridors, this project would employ prescribed burning to reduce natural fuels, and fuels created by timber harvest activities. Prescribed burning is considered an important management tool in this fire-adapted ecosystem, but effects from burning (blackened, scorched vegetation and tree trunks) may be visible for approximately 5 years.

This exceeds the standard for the amount of time management actions can be visible within both retention and partial retention allocations. It is recommended that these Standards and Guidelines be amended to allow visible effects of harvest cleanup and fuels reduction for approximately 5 years.

M9-90 and M21-43: Fire Management in Scenic View Areas and Metolius Black Butte.

This Standard and Guideline restricts the size of prescribed fire to 5-acre patches in foreground areas. Prescribed burning is considered an important management tool in this fire-adapted ecosystem, and it is proposed that burning occur at a landscape-scale to most effectively reduce surface fuels and promote fire-climax conditions. However, effects from burning (blackened, scorched vegetation and tree trunks) may be visible in the short-term. It is recommended that this Standard and Guideline be amended to allow prescribed burning on areas larger than 5-acres.

## **Fuelwood Collection**

A site-specific, non-significant amendment of fuelwood standard and guideline in the Forest Plan is proposed to allow the Forest Service to permit commercial and personal use fuelwood collection in the Metolius Heritage area.

M19-27: Fuelwood, Metolius Heritage Area.

It is assumed that this standard and guideline was initially developed to prevent impacts that could be associated with collection of fuelwood, such as user-created roads, piles of limbs and slash from wood cutting, and visible cut stumps. However, fuelwood may be a product that could be utilized as an outcome of implementing forest health and fuel reduction objectives under this project. Both commercial and personal fuelwood collectors could help accomplish these objectives by removing excess vegetation. The activity would only be permitted in specified areas and under specified terms and conditions that would mitigate potential impacts.

## **Effects of Proposed Forest Plan Amendments**

The proposed revised Visual Quality and Fuelwood standards and guidelines would not significantly change the forest-wide impacts disclosed in the Forest Plan Environmental Impact Statement, based on the following factors:

Timing: The effects of the proposed revised Visual Quality standards and guidelines for implementing the Metolius Basin Forest Vegetation Management project are predicted to occur in the short-term (approximately 5 years after the start of treatment) for prescribed burning and post harvest activities.

The effects of the proposed revised Fuelwood Collection standard and guideline for implementing the Metolius Basin Forest Vegetation Management project are predicted to occur in the short-term (approximately 5 years after the start of treatment) during implementation of the project.



Location and Size: The proposed revised Visual Quality standards and guidelines are site specific and would only affect the area within the Metolius Basin Forest Management project area boundary. The proposed revision of the Fuelwood Collection standard and guideline would only affect the Metolius Heritage area.

Goals, Objectives and Outputs: The proposed revised Visual Quality and Fuelwood Collection standards and guidelines would not alter the long-term relationship between levels of goods and services projected by the Forest Plan. There would not be any significant change in timber outputs over what might be available if the project was designed without the proposed amendment. Wood material that could not be removed through the use of fuelwood permits, would be removed by other means.

Management Prescriptions: The proposed revised Visual Quality and Fuelwood Collection standards and guidelines would not change the desired future condition for land and resources from that contemplated by the existing management direction in the Forest Plan in the short-term. It would not affect the whole Forest Plan planning area, but only approximately 14,700 acres of National Forest System lands within the Metolius Basin project area. The proposed amendments would not change the Forest Plan allocations or management areas.

## Findings Required by Law, Regulation, and Agency Policy

---

I have determined that my decision is consistent with relevant laws, regulations, and agency policy. The following summarizes findings required by major environmental laws.

### National Forest Management Act (NFMA), 1976

The National Forest Management Act (NFMA) and accompanying regulations require that several specific findings be documented at the project level. They are:

**Consistency with Forest Plan (as amended):** The Forest Plan establishes management direction for the Deschutes National Forest and provides the sideboards for project planning. Project implementation consistent with this direction moves us toward the desired condition described by the Forest Plan. In addition, the National Forest Management Act requires that all resource plans be consistent with the Forest Plan. The EIS displays the Forest Plan and Management Area goals, objectives, standards and guidelines applicable to the Metolius Basin Forest Management analysis area (FEIS, Chapter 1, pages 17-22; and Chapter 2, pages 62-76). Based upon review of pertinent information from the EIS and Project File, I have determined that Alternative 3-Modified is consistent with these goals, as amended with this decision regarding Visual Quality and Fuelwood Standards and Guidelines within this project area.

**Northwest Forest Plan, Metolius Watershed Analysis, Metolius Late-Successional Reserve Assessment, and Metolius Wild and Scenic River Plan.** The selected Alternative 3-Modified is consistent with direction in the Northwest Forest Plan and recommended management actions in the Metolius Watershed Assessment (including the Aquatic Conservation Strategy Objectives) (FEIS pages 324-330), Metolius Late-Successional Reserve Assessment (FEIS pages 220-225) and Metolius Wild and Scenic River Plan (FEIS pages 335-340).

### **Suitability for Timber Production and Vegetation Manipulation**

This project complies with the consistency standards of 36 CFR 219.10(f). No timber will be harvested from lands not suited for timber production as defined in 36 CFR 219.14. Since thinning of overstocked stands is the primary vegetation management proposed in Metolius Basin Forest Management Project, the ability to restock after tree harvest is generally not a concern. Within the small group openings in the larch restoration area trees will be restocked within 5 years after harvest, as needed to meet desired stocking levels. All manipulation of vegetation will comply with the requirements of 36 CFR 219.27 (b).

The decision to implement Alternative 3-Modified was based on a variety of reasons as discussed earlier in this decision. Economics was one of the many factors I considered. I reviewed traditional as well as non-traditional economic factors (FEIS pages 371-379) to assess the trade-offs between alternatives. I recognize that Alternative 3-Modified has higher implementation costs associated with the expense of a thinning operation with low valued trees (upper diameter limit of 16", except up to 25" diameter for white fir) than for Alternative 4 or 5, but provides a better balance to the way it addresses other important project goals and issues.

Alternative 3-Modified avoids impairment of site productivity. This determination is supported by the disclosures in the FEIS (pages 341-367) and the application of BMPs to prevent the loss of soil as displayed in the FEIS, Appendix C.

Alternative 3-Modified provides the desired effect on water quality and quantity, wildlife and fish habitat, regeneration of desired tree species, forage production, recreation uses, aesthetic values, and other resource yields. The Standards and Guidelines contained in the Forest Plan are designed to provide the desired effects of management practices on the other resources values. The Selected Action is consistent with applicable Standards and Guidelines.

**The National Environmental Policy Act (NEPA), 1969:** NEPA established the format and content requirements of environmental analysis and documentation, such as the Metolius Basin Forest Management Project. The entire planning process, including preparation of an environmental impact statement, complies with NEPA.

**The National Historic Preservation Act:** The Oregon State Historic Preservation Office (SHPO) has been consulted concerning proposed activities in the Metolius Basin Forest Management analysis area. SHPO has concurred on the finding of no effect on historic properties or potential historic properties.

**Clean Air Act Amendments, 1977:** Alternative 3-Modified is designed to meet the National Ambient Air Quality standards through avoidance of practices that degrade air quality below health and visibility standards. The Oregon State Smoke Management Plan will be followed to maintain air quality. The number of acres and fuel type burned will be dependent on meeting air quality standards. The Oregon Department of Forestry is the governing agency for air quality in Oregon and the Sisters Ranger District is in contact with Department of Forestry to determine if prescribed burning projects will meet Oregon State smoke management guidelines using current and predicted air quality conditions and current forecasted weather conditions. The Oregon Department of Forestry has the authority to stop any and all burning activities if conditions are not appropriate.

**The Clean Water Act, 1982:** Alternative 3-Modified will meet and conform to the Clean Water Act as amended in 1982. This will be accomplished, in part, through planning, application, and monitoring of Best Management Practices (BMPs). Site-specific BMPs have been designed to protect beneficial uses. Lake Creek, which flows in the project area and is a 303(d) listed stream for temperature, is protected by the selected Alternative which reduces the risk of catastrophic wildfire and thus the risk of increased turbidity/sedimentation and temperature, and decreased dissolved oxygen levels. In addition, thinning will not occur within 60 feet of Lake Creek so that there would be no change in the shade trees along these riparian areas. A water quality plan is currently being completed.

**The Endangered Species Act of 1973, as amended and Magnuson-Stevens Fishery Conservation and Management Act (MSA) of 2000:** In making my decision, I have reviewed the biological evaluations, the biological assessment, and the biological opinion associated with threatened and endangered species. Biological Assessments for threatened Wildlife and Aquatic Species have been prepared to document possible effects of proposed activities under Alternative 3-Modified on endangered and threatened species in the Metolius Basin Forest Management analysis area. Appropriate coordination, conferencing, and consultation with USFWS and NMFS have been completed. A Biological Opinion documents the US Fish and Wildlife's concurrence with the Forest Service's findings of not likely to adversely affect bald eagle and bull trout, and that the Metolius Basin Forest Management Project is not likely to jeopardize the continued existence of the spotted owl, and that proposed actions do not affect northern spotted owl critical habitat. The Biological Opinion and letter of concurrence is located in the analysis file. No adverse effects are anticipated on Essential Fish Habitat for Chinook salmon (listed under the Magnuson-Stevens Act) and as a result consultation was not required.

Alternative 3-Modified will have No Effect on Canada lynx (FEIS pages 133-134; 256-257) and as a result consultation was not required. In making my decision, I have reviewed the best available scientific information regarding Canada lynx distribution and the potential effects of the proposed action and the alternatives. I have reviewed the lynx habitat mapping on the Deschutes National Forest (2000 and 2001), which was based on the advice and guidance provided by the Lynx Biology Team in 1999 and 2000, respectively. I recognize that the information on Canada

lynx habitat has evolved over time, and I considered additional information from the Lynx Biology Team (October 2001). This project does not occur within a designated Lynx Management Unit (LAU) or Key Linkage Area, nor has it ever been included in any of the assessments of habitat on the Deschutes National Forest (Biological Evaluation, page 62). The Metolius Basin project Area consists of primarily ponderosa pine plant associations which do not equate to suitable lynx habitat (Biological Evaluation, page 62).

**Sensitive Species:** Federal law and direction applicable to sensitive species include the National Forest Management Act and the Forest Service Manual (2670). The Regional Forester has approved the sensitive species list – those plants and animals for which population viability is a concern. In making my decision, I have reviewed the analysis and projected effects on all sensitive species listed as possibly occurring within the project area. Biological evaluations were prepared to assess potential effects to sensitive species as identified by the Regional Forester. This evaluation determined that while there may be impacts to individual sensitive species, those effects are not likely to contribute to a trend towards federal listing or loss of viability of the population or species.

**Environmental Justice:** Environmental Justice means that, to the greatest extent practicable and permitted by law, all populations are provided the opportunity to comment before decisions are made, and are not excluded from government programs and activities affecting human health or the environment. An extraordinary effort has been made to include a wide range of interested and affected people into the development of the Metolius Basin Forest Management Project (see discussion under Public Participation in this document).

There would be no discernable impacts from the selected Alternative on Native Americans, women, other minorities, or the Civil Rights of any American Citizens.

## **OTHER POLICY OR GUIDING DOCUMENTATION:**

The FEIS for Managing Competing and Unwanted Vegetation, November 1988, Record of Decision signed December 1988, and the USDA Forest Service Guide to Noxious Weed Prevention Practices (2001), guide the policies for managing competing and unwanted vegetation used in this decision. This project will use prevention as the main strategy to manage unwanted and competing vegetation, and will incorporate all measures contained in the above documents. Specifics of managing competing and unwanted vegetation are documented in the FEIS (pages 307-316) and the Specialists Report/BE for Plants and Noxious Weeds.

## **Implementation**

---

I have reviewed the Metolius Basin Forest Management Project EIS, and its associate appendices. I feel there is adequate information within these documents to provide a reasoned choice of action. I am fully aware of the possible adverse environmental effects that cannot be avoided, and the irreversible/irretrievable commitment of resources associated with the selected alternative. I have determined that these risks will be outweighed by the likely benefits.

Implementing Alternative 3-Modified will cause no unacceptable cumulative impact to any resource. The EIS adequately documents how compliance with these requirements is achieved.

Based on the information I reviewed in the FEIS, all of the action alternatives have an estimated net market value “in the red” where the costs of implementing all of the activities associated with each alternative exceed the value of the material removed. That means that all of the alternatives will need to depend on appropriated funding (or any other funding such as through grants or partnerships) in combination with the new stewardship contracting authorities in order to implement all of their associated activities.

The predicted economic outputs from Alternative 3-Modified would be similar to those of Alternative 3, but with slightly greater potential receipts from larger white fir that could be removed. However, the cost would still be greater than the value of the potential wood products and it would be the most expensive alternative to implement since the cost of removing trees up to 16” diameter is relatively high and the value of trees less than 16” in diameter is relatively low. Through a combination of contracting authorities under this stewardship project, there will be opportunities to use the value of material removed from areas that are generally not economically viable to help offset the costs of treatment. Activities will be combined in an advantageous manner to help improve economic efficiencies and reduce overall costs while still providing outputs to help support local economies.

## Appeal Provisions and Implementation

---

This decision is subject to appeal pursuant to Forest Service regulations at 36 CFR 215.7. Any written appeal must be postmarked or received by the Appeal Deciding Officer, Linda Goodman, Regional Forester, ATTN: 1570 APPEALS, P.O. Box 3623, Portland, Oregon 97208-3623 within 45 days of the date of publication of the legal notice announcing this decision in The Bulletin newspaper.

It is the responsibility of those who appeal a decision to provide the Regional Forester sufficient written evidence and rationale to show why my decision should be changed or reversed. The written notice of appeal must:

- State that the document is a Notice of Appeal filed pursuant to Title 36 CFR Part 215;
- List the name, address, and if possible, a telephone number of the appellant;
- Identify the decision document by title and subject, date of the decision, and name and title of the Responsible Official;
- Identify the specific change(s) in the decision that the appellant seeks or portion of the decision to which the appellant objects; and
- State how my decision fails to consider comments previously provided, either before or during the comment period specified in Title 36 CFR 215.6 and, if applicable, how the appellant believes the decision violates law, regulation, or policy.

If no appeal is received, implementation of this decision may occur on, but not before, five business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition.

**CONTACT PERSON**

For additional information concerning the specific activities authorized with my decision, you may contact:

Tom Mafera, Environmental Coordinator  
Sisters Ranger District,  
PO Box 279  
Sisters, OR 97759  
(541) 549-7744

Recommended by: /s/ William Anthony  
**BILL ANTHONY**  
Sisters District Ranger

Responsible Official:

/s/ Leslie A.C. Weldon  
**LESLIE WELDON**  
Forest Supervisor  
U.S. Department of Agriculture  
Deschutes National Forest  
P.O. Box 6010  
Bend, OR 97708-6010

7-2-03  
Date